

RICE UNIVERSITY

**An Economic Theory of Pro-Government Militias**

by

**Santiago Sosa**

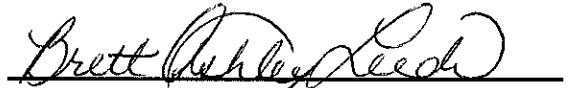
A THESIS SUBMITTED  
IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE

**Doctor of Philosophy**

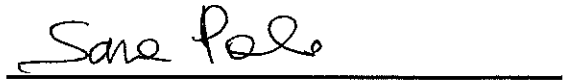
APPROVED, THESIS COMMITTEE



Dr. T. Clifton Morgan, Committee Chair  
Albert Thomas Professor of Political  
Science



Dr. Brett Ashley Leeds  
Professor of Political Science, Political  
Science Department Chair



Dr. Sara Polo  
Assistant Professor of Political Science



Dr. Andrea Ballesteros  
Assistant Professor of Anthropology

HOUSTON, TEXAS  
November 2018

## **Abstract**

An Economic Theory of Pro-Government Militias

by

Santiago Sosa

Throughout the world, states delegate various and sundry security tasks to armed groups outside their regular forces. The main arguments in the literature are that governments use militias because of their logistic advantages (autonomy, informational advantages, and cheap deployment) and to provide the government with plausible deniability for human rights violations. However, not all militias victimize civilians and when they do the government usually does as well. Why, then, would states use militias at all? Moreover, why, despite the risks of side-switching, agency loss, and excessive use of force inherent to them, do states use armed groups outside their regular forces rather than spending more on the latter? This study develops a general framework to analyze the use of militias. It presents a formal model of the state's decision to spend on regular and irregular forces as if it was a firm producing a good: security. However, these forces also produce liabilities to the state, and so it is in balancing security and liability that the state optimizes its expenditures. The theory leads us to expect that militias are more likely to be used, all else equal, the greater the budget available is, the more cost-effective they are relative to the regular forces, the lower the risk of using them, and the more a state values security over liability. Likewise, there is substitutability between armed forces: that to spend on one force the state must necessarily spend less on the other one. Thus, all else equal, the more a state uses militias, the less it will use its regular forces, and vice-versa. I test some of these expectations with two studies. The first uses cross-national data on militias, judicial independence and civil wars between 1981 and 2007. I find that militias are more likely to be used in states that have a weak judiciary. The second is a case-study of Colombia's most recent civil war. Using municipality-level data between 2000 and 2006, I find that the Colombian armed forces decreased their activity against rebels in areas where the United Self-Defense Forces of Colombia were active.

## Acknowledgments

At the end (or beginning?) of this, the most difficult and fascinating journey, I am grateful to all those around me who empowered me, put up with me, and cherished my company. In the best and worst of times, I have certainly cherished theirs.

To my advisor, Cliff Morgan, for whom I have the deepest gratitude and admiration. By chance I was thrown into his formal modeling class in my first semester, and there, early on, I found my way in political science. I am fascinated by just how able and willing he is to (intellectually) wrestle with whatever comes his way, and I hope to follow his example in my own career.

To my committee members, Sara Polo and Ashley Leeds, I am grateful for empowering me in my development as a scholar and in my search for a dissertation topic, and for allowing me to go through with it, even in its most early stages, in their coursework. To Andrea Ballesterio, I am grateful for her accepting the challenge of joining a Political Science thesis committee, and full of admiration for her surpassing already high expectations.

To Songying, Ric, and Justin, I am grateful for their teachings, their encouragement, and their stories.

To Sabine Carey and her team at Mannheim. A year is spent with immense speed, but your support and guidance made it worth twice as much. I am forever grateful for inviting and welcoming me to your home and to the European Political Science community.

The journey, however, would not have been possible with only intellectual support. I owe my life (twice!) to the Argentinians I've met in Houston and in Mannheim, as without them my transition into a new society would have been far more difficult and painful than it was. I thank Mauro, Agustín, Fernando, and Santiago for welcoming me into their group in Houston, and Silvina for her friendship in Mannheim.

To my cohort mates, Maria and Agustina, for all their support and company through the growing pains of gradschool.

To my office mates, Jessica (my *achoti*), Kristin, Liana, Aiganym, and Nick, and to Ahra, Jared, Matt and Steven. Thank you for making me feel at home.

To the people at LAGSA, the Brazilians at Rice, and the Mediterraneans at Mannheim, for keeping me whole.

To the international offices at Rice University and Mannheim Universitaet, for making immigration feel like a breeze, even through these uncertain times.

Finally, to all the people that invited me into their hearts in Houston and in Mannheim, too numerous to write here, I owe you my good times and my sanity.

# Contents

<b>1</b>	<b>Introduction</b>	<b>2</b>
1.1	The Study of Militias . . . . .	4
1.1.1	Conceptualizing Militias . . . . .	4
1.1.2	What Do We Know About Militias? . . . . .	6
1.1.3	Delegation of Atrocities and its Critics . . . . .	11
1.2	Moving Forward . . . . .	16
<b>2</b>	<b>An Economic Theory of Pro-Government Militias</b>	<b>18</b>
2.1	Providing Security: The Good and the Bad (and the Ugly) . . . . .	19
2.2	The Theory Formalized . . . . .	21
2.3	Choosing to Use a Militia . . . . .	25
2.3.1	Choosing to Only Use Militias . . . . .	26
2.4	Combining Forces . . . . .	27
2.5	Implications . . . . .	28
2.5.1	The Budget Constraint . . . . .	28
2.5.2	Efficiency: Security and Liability . . . . .	30
2.5.3	Salience . . . . .	34
2.6	Conclusion . . . . .	36
<b>3</b>	<b>Balancing Security and Liability: A Cross-National Study</b>	<b>38</b>
3.1	Delegating Atrocities: A Means or an End? . . . . .	39
3.1.1	Exacerbating Militia Liability: The Role of the Judiciary . . . . .	42
3.2	Research Design . . . . .	44
3.3	Results . . . . .	47
3.3.1	Judicial Independence Across Regimes . . . . .	51
3.3.2	Militias as ‘Failure Events’ . . . . .	53
3.4	Concluding Remarks . . . . .	56

<b>4</b>	<b>Combining Forces: Force Substitutability in Civil War</b>	<b>59</b>
4.1	Force Substitutability . . . . .	60
4.2	Case Study: The United Self-Defense Forces of Colombia . . . . .	63
4.2.1	On Colombia's Paramilitary Experience . . . . .	64
4.2.2	Summing Up . . . . .	75
4.3	Research Design . . . . .	76
4.4	Results . . . . .	78
4.4.1	Substitution or Division of Labor? . . . . .	82
4.5	Concluding Remarks . . . . .	84
<b>5</b>	<b>Conclusion</b>	<b>86</b>
5.1	What Have We Learned? . . . . .	86
5.2	Future Research . . . . .	90
5.2.1	Exploring the Theory's Implications . . . . .	90
5.2.2	Expanding the Theory . . . . .	92
5.3	Policy Implications . . . . .	93

# List of Figures

2.1	The State's Indifference Curves . . . . .	20
3.1	Judicial Ind. Across Regimes, With and Without Civil War . . . . .	47
3.2	Substantive Effects of Judicial Independence . . . . .	52
3.3	Judicial Independence Across Regimes . . . . .	54
4.1	Expected Army Offensives Given AUC Attacks . . . . .	82
4.2	AUC Activity and Armed Forces Offensives . . . . .	84

# List of Tables

3.1	Summary Statistics . . . . .	48
3.2	Determinants of PGM Activity . . . . .	49
3.3	Determinants of First PGM Use . . . . .	55
4.1	Summary Statistics . . . . .	78
4.2	Correlates of Armed Forces' Offensives . . . . .	79
4.3	Correlates of Armed Forces' Offensives (Regional FE) . . . . .	80
4.4	Correlates of Armed Forces' Offensives (Reduced Sample) . . . . .	83

# Chapter 1

## Introduction

Why do states use militias? From tribal militias used by the United States and Iraq to fight ISIS to a small counter-insurgency army in Colombia, a death squad in search of Basque separatists in Spain (and France), and a coup-proofing militia that protects the Iranian regime (the Iranian Revolutionary Guard), governments in all types of countries have made use of armed groups outside of their regular forces to accomplish various and sundry security tasks. Indeed, governments rarely fight rebels alone (Jentzsch, Kalyvas and Schubiger, 2015): Militias have been present in most civil wars around the world in the latter part of the twentieth and early twenty-first centuries.

As Kalyvas and Arjona (2005) put it, to preserve the monopoly of violence, the state must paradoxically dissolve it. Far from the Weberian monopoly of violence, what we see throughout the world, then, is an oligopoly of violence (Carey and Mitchell, 2017). However, the use of militias also comes at a high risk regarding the safety of their own citizens, its institutional integrity and even the very sovereignty that militias are supposed to safeguard. Militias may shirk their responsibilities (Carey and Mitchell, 2016) or even turn against the state (Otto, 2015, 2018), they erode democratic institutions (Mazzei, 2009; Raleigh, 2016), and violate human rights (Mitchell, Carey and Butler, 2014; Carey and Mitchell, 2017).

The main argument in the literature is that states use militias because they have several advantages over the regular forces: they are cheap to deploy and their autonomy makes them flexible and quick to react (Böhmelt and Clayton, 2018), they have privileged information, which allows them to better navigate the local population and geography, and confer some legitimacy to the regime (Carey and Mitchell, 2016), and they provide plausible deniability for human rights violations (Mitchell, Carey and Butler, 2014). Indeed, much of the literature has focused on the ‘delegation of atrocities’ aspect of militias: that they are employed because they do the ‘dirty work’ so that the government does not take the blame.

However, as Stanton (2015) shows, not all militias target civilians and when they do



the government usually does as well. In the latter case, it would seem difficult to argue that political cover is the condition *sine qua non* for the use of militias. This argument must therefore be made more nuanced. Moreover, going back to the advantages mentioned above, the literature fails to address under what circumstances these would make militia use desirable given how risky their use is, nor why it wouldn't be preferable to spend more on the regular forces rather than rely on agents. In other words, the trade-off inherent to the combination of forces has of yet not been addressed in the literature, but rather only assumed to be beneficial.

This dissertation aims at providing a general theory about the use of militias. The starting point is that the state has various instruments to achieve a goal (i.e., it can substitute policies), but it has to choose carefully because it has limited resources and there is inherent risk in using each instrument. Thus, using either or both regular (e.g., the army) and irregular forces (militias) is the result of a careful balancing of the costs and benefits of each one, given the available budget. The theory developed here is built based on the literature on policy substitutability, especially the work of Palmer and Morgan (2006), who view the state's expenditure on policies as a firm using inputs for the production of desirable outcomes (goods).

The text is organized as follows. The current chapter reviews the literature on militias and discusses its theoretical underpinnings, as well as point to the limitations that stem from it. The second chapter presents the theory. I develop a formal model of the state's decision to spend on its regular and irregular forces, as if it was a firm producing a good, security. However, using these forces to produce security also produces liabilities to the state, and so it is in balancing these that the state optimizes its resource allocation.

Chapters 3 and 4 provide a test to the hypotheses derived from the theory. Chapter 3 presents a cross-national study in which the main objective is to understand which states are more likely to use militias to deal with their security situation. In particular, it studies the effects of domestic accountability, focusing on judiciary strength, on the likelihood of using militias.

Chapter 4, on the other hand, explores how states use militias in tandem with their regular forces. I study the case of Colombia's United Self-Defense Forces, a militia active between 1997 and 2006, that targeted rebel groups and their alleged supporters. I use municipality-level data to explore the conflict dynamics and how the militia is combined with the state's regular forces. In particular, I demonstrate that there is a substitution effect present in the use of both forces.

Finally, chapter 5 presents the concluding remarks of this study and implications for future work.

## 1.1 The Study of Militias

Research on political violence has recently begun to focus on more fine-grained analysis and data collection in which the assumption of two monolithic sides battling against each other has been challenged. Although most of these efforts pertain the multiplicity of the side fighting against the state (i.e., there are multiple rebel groups, and they fight each other), it has only been recently that the side of the state has begun to be understood in terms of multiple actors (Jentzsch, Kalyvas and Schubiger, 2015).

Indeed, the government rarely fights a war against rebels alone: militias, which are formed by either the state or local communities independently from, supported or co-opted by the state, have emerged in many cases of political instability such as civil war. Carey, Mitchell and Lowe (2013) identify 332 militias active around the world between 1981 and 2007, and 88 out of 178 surveyed countries had at least one militia at some point during this period. The authors also find the presence of militias in 81% of civil wars in the same period.

Their importance in the study of political violence in general, and civil war in particular, therefore, cannot be ignored. As Jentzsch, Kalyvas and Schubiger (2015) argue, this nascent literature allows us to better understand civil war insofar militias change the dynamics of violence within civil wars, the pattern of recruitment of armed actors, and impact the length and termination of civil war. In sum, the study of militias also puts into question whether or not our theoretical understanding of domestic political violence is complete.

### 1.1.1 Conceptualizing Militias

Militias are referred to by many names: self-defense forces, vigilantes, paramilitaries, pro-government militias, deathsquads, and so on. A general definition is given by (Kalyvas and Arjona, 2005, p. 29), who define paramilitaries as “armed groups that are directly or indirectly aligned with the state and its local agents, were created by the state or are tolerated by it, but they are outside the state’s formal structure.”<sup>1</sup>

In many cases, however, authors will use a more restricted definition based on their particular subject of interest. Jentzsch, Kalyvas and Schubiger (2015, p. 756) for example, focus on civil wars, and as such define militias as “armed groups that operate alongside state security forces or independently of the state, aiming to shield local populations from rebel demands or depredations and seeking to acquire its loyalty or collaboration.”

Raleigh (2016), on the other hand focuses on context. She argues that militias are created by elites and “operate as ‘private armies’ for political elites, which broadly include regimes, members of governments, rebels, political opponents, and community or religious leaders”

---

<sup>1</sup>My translation.

(Raleigh, 2016, p. 284), but that they take different forms based on the political context in which they emerge. Thus, she provides a typology of militias: 1) local security providers, which emerge in areas where government presence is limited or absent; 2) emergency militias, which are used in periods of crisis such as civil wars, and 3) competition militias, which are used by elites to gain access to state power and rents.

Some authors focus on the clandestine nature of some militias. Mazzei (2009, pg. 4), for example, gives us the following definition:

Paramilitary groups are political, armed organizations that are by definition extramilitary, extra-State, noninstitutional entities, but which mobilize and operate with the assistance of important allies, including factions within the State. Thus while officially illegal, [paramilitary groups] enjoy some of the resources, access, and status generally exclusive to the State but which is funneled off by political and military allies.

For Böhmelt and Clayton (2018, pg. 7), however, paramilitaries are “militarized security units, equipped with (light) military weapons and/or military vehicles, trained and organized under the central government to support or replace regular military forces”, which the authors contrast with any other armed force that is loosely affiliated with the government (i.e., pro-government militias, see below).

Carey, Mitchell and Lowe (2013) focus on the connection between the government and militias. Their definition of a pro-government militia (hereinafter PGM) is “a group that 1. is identified as pro-government or sponsored by the government (national or subnational), 2. is identified as not being part of the regular security forces, 3. is armed, and 4. has some level of organization” (Carey, Mitchell and Lowe, 2013, p. 250). The most important element in their definition is that there must be a link between the group and the state to be considered a PGM, and sharing an enemy is not enough.

However, there is variation in this link: some militias are openly recognized by the government (these are called semi-official PGMs) whereas others are unofficial and the link is either obscure (perhaps known but never formalized) and even clandestine in some cases (informal PGMs). In the latter case, the link between the government and a PGM has been found because of the works of journalists, activists or human rights organizations, among others. Indeed, some of these groups are found to have been linked to the government after they have ceased to exist.

There is thus a plethora of definitions of and names to designate militias. However, they all seem to share certain elements: that militias are an armed or militarized organization that is not part of the regular forces of the state, but that is either created and/or used

by state actors to pursue political purposes. Most of the differences stem from either the purpose of the group, its origin, or the connection to the state.

For the purposes of this work, I take a simple, broad definition of militias that focuses only on groups that are aligned with the state: an armed group that operates outside of the regular forces structure that the state uses to provide security, but didn't necessarily create it.

### 1.1.2 What Do We Know About Militias?

Typically, militias are understood in a principal-agent framework: states delegate some security tasks to militias because they are unable or unwilling to carry them out. One of the main questions in the literature has been, therefore, under what conditions do states use militias to fulfill specific security tasks. These range from protection of the population and counterinsurgency efforts to human rights violations in order to keep civilians in check. Below I review the findings based on the tasks assigned.

#### Coup-proofing

Since they are a force independent from the state's regular forces (military, police, etc.), militias can be used to deter coups and to protect the leadership against them should they be attempted. These protective militias are considered to be the agents of regime leaders and are closely connected to them. Ash (2016, p. 712) argues that "many PGMs are positioned more as arms of a leader rather than the state. PGMs allow leaders to either bypass potentially disloyal or ineffective armed forces without explicitly threatening the autonomy of the armed forces as an institution or compensate for military capacity lost as a result of coup-proofing measures". The author finds that recent coup attempts greatly increase the likelihood of PGM formation.

The effect of these coup-proofing militias, however, has come into question. Sudduth (2017) argues that forming militias may actually trigger coups: as coup risk increases, coup-proofing becomes more dangerous because any strategy could alert the military and prompt them to action in order to not allow the leader to become too powerful. Thus, the author finds that militia emergence is more likely in mid-levels of coup risk: at high risk levels militias prompt coups, and at low risk levels they are not deemed necessary. In a similar vein, De Bruin (2018) argues that coup-proofing strategies are effective at decreasing the success of coup attempts. However, this does not decrease the number of attempts, but actually increase them because counterbalancing may create grievances among the military (undermining the institutionality of the military and their interests). Thus, coups may be

more frequent, albeit less successful.

Carey, Colaresi and Mitchell (2016, p. 61), however, argue that militias are better understood if we consider coup-proofing as part of a broader principal-agent problem: “Beyond counter-balancing, we argue that outsourcing some tasks in the security area offers efficiency gains when governments anticipate a threat from rebel groups”. These efficiency gains, they argue, are cheap force multiplication, specialized information, and legitimacy building. Thus, they are force substitutes when coup-proofing and complements when fighting rebels. It is not clear, however, how the use of the same group for building domestic legitimacy allows for avoiding the loss of international legitimacy (i.e., plausible deniability), especially when the group has a clear link to the government (in the authors’ terms, a semi-official militia). Nevertheless, their point of militias being used for multiple purposes is of great value, as will be shown below.

### **Militias as Power Brokers in Weak Democracies**

Militias have also been linked to both the development and weakening of democratic institutions and processes. Some authors argue that militias are the agents of elites in brokering power between competing groups and influencing democratic processes. Choi and Raleigh (2015), for example, argue that militia violence is oriented toward shaping the political power structure at the local, regional, and national level, at the behest of elites. They argue that this violence has increased as a result of political fragmentation and competition, and in response to the rising level of checks and balances on the executive power. In their study of Africa between 1997 and 2012, they find that the lower the political participation and the greater the checks and balances are, the more likely militias will be formed in order to co-opt people to vote one way or another, and this is greater when presidential elections take place.

Similarly, Raleigh (2016) argues that recent democratization has made state access and resources to be ‘up for grabs’, and thus elites have incentives to create armed groups to pursue their regional or local interests, which may be at odds with both the central government and other elites. In this way, militias are a way for contesting access to state power and rents. Not only that, they provide plausible deniability because the patron can deny having used a militia. She finds that the more political parties there are in a given country, the more likely elites will use militias to influence electoral results.

Using a principal-agent framework, Böhmelt and Clayton (2018) argue that militias are also used to produce some form of stability in weak and/or new democracies, in which controlling the population through the state’s regular forces may be too costly or risky in terms of accountability. They distinguish between two types of agents of the state: paramilitaries (see above) and PGMs on the basis that the latter are cheaper and more autonomous, which

allow for plausible deniability. In this sense, PGMs are used to cheaply maintain the new political order while having the option to deny any involvement in violating human rights.

Their use in ensuring order after democratization, however, may not come without consequences to the democratic exercise itself. Mazzei's (2009) analysis of the Latin American experiences with militias is informative in this regard. She argues that paramilitary groups emerge as grassroots organizations, aided by the state, when the following conditions are met: (1) political exclusion has made elites perceive their security to depend on the maintenance of the status quo, (2) there is a history of providing arms to loyal civilians to defend from threats (i.e. other civilians/groups), (3) there is a political contestation movement demanding reforms that would undermine the elites' position, (4) the state cannot overtly use force against this new threat, (5) moderates within the elite have the upper hand in policy making instead of the hardliners, and (6) factions of the elite have a sense of grievance regarding their vulnerability to the reforms which the moderates may enact. Thus, the paramilitaries are used to maintain the status quo with the help of the hardliner elements of the elite. In this sense, the author finds that paramilitaries hinder the development of democracy, as states delegate violent repression.

## **Repression and Civil War**

Most of the literature on militias, however, focuses on the role that they play in violent repression and armed conflicts. The arguments made in this branch of the literature show that there are two types of advantages that militias provide as the state's agents: military capabilities and shifting accountability. Regarding the first, militias are considered cheap force multipliers that are flexible and quick to react (Böhmelt and Clayton, 2018) that have informational advantages since they have access to the population in ways that the army does not (Carey, Colaresi and Mitchell, 2015; Biberman, 2018), which make them useful agents for the government, and may even provide them with legitimacy when they are made up of members of the local community where they operate (a demonstration of local support) or even have former rebels in their ranks (Carey and Mitchell, 2016).

As such, the findings in the literature are that militias are more likely to be used during periods of political instability such as civil war Carey, Colaresi and Mitchell (2016), ongoing demonstrations (Carey, Colaresi and Mitchell, 2015), and recent democratization (Böhmelt and Clayton, 2018; Raleigh, 2016). The impact militias have on civil wars, however, is still open to debate. In their review, Carey and Mitchell (2016) find that, save for the militias being associated with higher civilian victimization rates, there is no clear evidence that states that use militias are more effective in counterinsurgency, which means that more fine-grained analysis about how militias engage in conflict is needed. Not only that, the authors also argue

that militias may make conflicts last longer because they may be gaining private benefit from the war, and they may contribute to political instability when conflicts do actually end.

Regarding the second, there is widespread consensus in the literature that militias do the ‘dirty work’ instead of the state, and in so doing they provide the government with plausible deniability for human rights violations (Mazzei, 2009; Mitchell, Carey and Butler, 2014; Choi and Raleigh, 2015; Koren, 2017; Carey, Colaresi and Mitchell, 2015, 2016; Raleigh, 2016; Böhmelt and Clayton, 2018). This works in one of two ways: the government can either deny any involvement with the militia if their connection is informal or clandestine (Carey, Colaresi and Mitchell, 2015; Böhmelt and Clayton, 2018), or shift the responsibility to agents gone rogue or ‘bad apples’ (Mitchell, Carey and Butler, 2014).

At the heart of this is the idea that the state cannot use force *overtly* against a new threat (e.g., Mazzei, 2009), which implies that using violent repression may be too costly for the state. In other words, something constrains leaders from violating human rights. The literature argues that these constraints come from both domestic and international accountability. The domestic source of accountability is primarily democratic institutions, through which punishment may come in the shape of loss of support, whereas internationally other states may punish leaders with poor human rights records by withholding aid, restricting trade, naming and shaming, etc. In particular, the findings in the literature regarding accountability is that the more aid dependent a country is, the more incentive it has to use militias, and that militias with an informal link to the government are more likely in weak democracies or anocracies, that is, regimes in the middle of the polity scale (Mitchell, Carey and Butler, 2014; Carey, Colaresi and Mitchell, 2015).

Along the same lines, Koren (2017) argues that militias are not likely to perpetrate massacres independently of the government, but rather that they are ordained. In other words, one-sided violence episodes by militias are not likely to be due to loss of agency, but rather encouraged by and coordinated with the government. The author argues that militias tip the balance toward the use of mass killings in repression because they lower the costs of doing so, both in terms of resources spent (they are cheap), and accountability (plausible deniability), but that this specific use of militias requires at least some degree of control by the government to be orchestrated.

An issue with the study of militias is that it is not always clear how they come to be. That is, they may emerge completely autonomously from the government, the government may encourage and fund their formation, or they can be formed by the government itself. Mazzei’s (2009) account, for example, supposes that the state, or at least hard-liner factions of the ruling elite and the military, are always involved in the creation of militias in order to defend the status quo by whatever means possible. That is at least how she explains militias

in Latin America and then generalizes from there.

Jentzsch (2014), who does not take a principal-agent approach, argues militias are likely to emerge in regions of disputed control between the state and the rebel groups. In this sense, she incorporates Kalyvas's (2006) framework in our understanding of militias: that they will be present where neither warring side has majoritarian control (i.e., regions in which military stalemate has occurred). In her study of Mozambique she finds that community-initiated militias were mobilized more successfully than militias that were engendered by the state itself, since the latter had higher desertion rates and even made the security situation worse.

Whatever the case, the origin of militias and how much the government was involved in it are always difficult to pinpoint. It is no wonder, then, that the focus of the literature has been on how visible the state's connection to the militias is, especially given the plausible deniability argument. Indeed, most scholars simply assume that militias are created by the state or are readily available to be used.

Although they are usually thought of as complementary to the regular forces, they can also directly replace them. Eck (2015) argues that militias are used by the government to fill in the vacuum after military purges in conflict zones. Since the government requires the military to obtain information in order to keep the population in line, a crippled repressive apparatus (thanks to the military purge) creates an incentive for the state to fill this vacuum with militias. However, this is only the case in conflict zones, since purges elsewhere are not as crippling to the repressive apparatus. What the author identifies, then, is an extreme situation in which the army is deemed insufficient or untrustworthy to perform security tasks, and so the government relies on other agents.

Relatedly, Ahram (2011) argues for the use of militias to deal with state failure, rather than bolstering state capacity through the regular forces. In this regard, he is challenging the notion of the monopoly of violence as the necessary condition for state formation. Rather, it is the exception that a single repressive apparatus is able to achieve preponderance over the rest, and so localized agents are not a signal of but rather a solution to state weakness. Although not explicitly, he is setting up militias as the agents of states and international community. For example, he writes "[t]he practice of co-opting local elites as militia leaders instead of relying on a national army has already been implemented to some extent as a tactic in the global War on Terror" (Ahram, 2011, p. 187), and so the author argues that local provision of security should be the first option, not the last resort.

Whatever the origin, the emergence new armed actor creates new challenges for governance and for the control of violence itself (Grajales, 2017). Indeed, as Mitchell, Carey and Butler (2014) find, the presence of militias is associated with an increase in human rights violations. Relatedly, Koren (2017) finds that militia presence is a good predictor of state-led



massacres. There is also evidence that links militias to forced displacement: paramilitaries in Colombia were involved in protecting the lands of their allies while helping with land grabs (Gutiérrez Sanín and Vargas Reina, 2016). Indeed, there has been massive displacement given indiscriminate violence in Colombia’s counterinsurgency operations, and when locals resisted displacement by paramilitaries, even by legal recourse, they were accused of supporting the guerrillas, which then made them targets of violence (Grajales, 2011, 2013).

The use of militias, moreover, may cause groups in conflict to be trapped in a spiral of violence against civilians, in which civilian victimization by one group leads to civilian victimization by another, and the more nonstate agents there are the higher the violence against civilians will be (Raleigh and Choi, 2017). Interestingly, militias may also be correlated with decreases in state-sponsored violations to civilians. Clayton and Thomson (2016) argue that the use of civilian defense forces allow for better targeting of insurgents and their sympathizers because of their access to information, which would lower the use of indiscriminate violence by state agents. The rebels, however, may retaliate in order to deter collaboration with the state and try to retake control of the area. Thus, although violence by the forces on the state’s side decreases, violence by the rebels increases, and the authors even found a short-run effect of increased battle-related deaths in zones where militias emerge.

### 1.1.3 Delegation of Atrocities and its Critics

As was shown above, the main framework in the literature used to explain militias is the principal-agent (PA) model. The state (the principal) delegates some task to a militia (the agent). The issue, however, is that militias may shirk their responsibilities or may pursue private interests rather than the principal’s. What the delegated task is, however, varies from study to study. Some take a general view (e.g. Böhmelt and Clayton, 2018; Carey and Mitchell, 2016), whereas others focus on repression (Mitchell, Carey and Butler, 2014; Carey, Colaresi and Mitchell, 2015) or force balancing (i.e., coup-proofing) and counterinsurgency (Carey, Colaresi and Mitchell, 2016).

Regardless of the task at hand, what most authors agree on is that the use of militias offers plausible deniability: that since the militias are outside of the regular forces and may have an informal or even clandestine link to the government, if a militia violates human rights then the government would be able to argue that they are not connected to it or regard the incident as the loss of agency (i.e., the result of the agent gone rogue). What is implied in some of these works is that the government is actually outsourcing human rights violations: although “accountability leads governments to forego repression (...), an alternative for government officials is to seek to evade accountability for this violence” (Mitchell, Carey and Butler,

2014, p. 815), and militias provide exactly this.

Herein lies a problem in the literature: human rights violations are considered, at the same time and without any way of distinguishing between them, as both the product of delegation and agency loss. In other words, militias violate human rights either because that was their job or because they pursue their own interests or use methods that the principal may not like, and the literature gives no explanation as to the circumstances under which we could expect one or the other. Indeed, it may be very likely that these are empirically indistinguishable.

A clear example is found in Mitchell, Carey and Butler (2014), who, in my opinion, present the most complete application of the PA logic to the study of militias. The authors argue that since militias may shirk responsibilities or pursue their own agendas, then the “agency problems pose a heightened risk for the security and safety of citizens” (p. 817). In the typical PA setting, the principal would then devise some mechanism to ensure that the agent performs well. As for militias, the authors say that

[t]o minimize costly monitoring, attention is paid to screening agents, training, compensation, and to professional values (...) With respect to militias, these mechanisms are likely to be absent or implemented less carefully than they are in the formal security sector. The informal organizations are likely to recruit former rebels, strategic extremists, or those interested in private gain, such as criminals, football hooligans (Arkan’s Tigers), or others with their own motivations for committing violence. (p. 817)

An additional issue arises here: the authors have implicitly built in a second layer to the PA problem, as agency loss now seems to be an issue of the recruits rather than the militia commanders. Is it that militia commanders order recruits to go against the state’s interests, or that recruits go against the commanders’ and thus also against the state’s? Likewise, and as can be seen above, although the agency costs and the instruments principals have for dealing with them are acknowledged, these are understudied in the literature<sup>2</sup>.

But back to the point at hand, the authors

expect that informal groups with no formal or official link to the government will have greater recruitment and operational discretion and less monitoring - and consequently a higher risk of agency problems and therefore more substantially affect human rights conditions (p. 817).

---

<sup>2</sup>Although this is beyond the scope of this study, this is nonetheless a vital point to study. What mechanisms do the state use to rein in its militias? As Grajales (2017) put it, using militias does not simply governing through violence, but also governing the exercise of violence. In this line, the work of Benjamin Lessing (2017) on how the government’s engagement of cartels shape their violence might be informative.

However, they then argue that the PA problem can become an advantage:

The thrust of principal-agent logic [sic] is to identify the control problems confronting principals. It suggests you cannot trust the agent. But this logic also offers opportunities to unscrupulous principals as well as to agents (...) There may be circumstances when the principal derives a strategic benefit from what would appear to be the hidden actions of the agent, where the principal can exploit the distance to the agent (p. 818).

As such, they conclude:

We expect that the ability to evade accountability as a result of a government collaborating with militias increases the risk to civilians; governments are assumed to be more likely to use a violent strategy if they expect to avoid being held responsible for it. If challenged by other state or nonstate actors, they can claim a simple agency problem and lack of control, passing the costs to the “out of control” or “bad apple” agents (p. 819).

All of this seems to indicate that the authors assume that states want to, but cannot, violate human rights because of domestic and international accountability (see also Carey, Colaresi and Mitchell, 2015), and thus use militias to do so, as was explained in the previous section. Although they mention that there may be a strategic benefit to violating human rights in providing security, they do not explain exactly what this benefit is, nor under what circumstances would it be present. In other words, it is as if violating human rights always has a benefit to it.

Yet, as we know from the repression-dissent literature, the impact of coercion on dissent is mixed, and it may make matters worse for the state (Davenport, 2007). Indeed, Kalyvas (2006) argues that indiscriminate violence actually hurts the actor doing it. Why, then, would states want militias violating human rights if the results of doing so are mixed?

Supposing that militias are actually delegated with human rights violations, how does the principal appraise this? What are not enough (or too many) violations? In this sense, given the PA logic, would the state reward militias for committing atrocities, or punish those that do not commit enough or any?

Moreover, militias do not necessarily engage in human rights violations instead of the state. Indeed, Stanton (2015) questions the delegation of violence logic of militia use: if states delegate atrocities to militias, then why do they still violate human rights directly? She finds that militias rarely target civilians if the state does not. In her study of militias between 1981 and 2010, she finds that when governments target civilians, 56% of the time militias

do not. Only in 17% of the cases have militias targeting civilians when the government does not. Her explanation is that the more autonomy the militia has from the state and the less it depends on a community, the more likely it is to victimize civilians therein.

Similarly, Cohen and Nordås (2015) are skeptical of both arguments of civilian victimization as delegation or the loss of agency that comes about by using militias. They argue that sexual violence by militias is the result of their poor organizational conditions rather than being delegated by the state. Militias are more likely to use sexual violence when they suffer from low cohesion, that is, sexual violence is used as a tool to build cohesion, and this is highly associated with recruitment by abduction (that is, rape is part of the socialization into the armed group). Not only that, the authors show that government forces engage in sexual violence even in the presence of militias. In other words, militias seem to commit sexual violence not in lieu of, but rather in addition to the state.

Regardless of the fact that states continue to violate human rights directly even when it is using militias (Stanton, 2015), by this secret delegation the state actually becomes vulnerable to the truth being found out, not by NGOs or citizens, but by the agents themselves. What incentives would militias have to not tell on the government? Indeed, it would seem to be that the state could now be held hostage by the militia. This would be especially true if militias would take part in transitional justice and truth commissions.

This is precisely what happened in Colombia when the United Self-Defense Forces of Colombia demobilized, and the state silenced militia commanders by extraditing them to the US, where they only had to stand trial for drug-trafficking<sup>3</sup>. The state's delegation of violence is either short-sighted or the risk is underestimated. This, however, is not explained at large in the literature.

Moreover, there is a contradiction within the literature regarding two of the advantages of militias. As was shown, most agree on plausible deniability, but some of the same authors also argue that militias are a way to increase the legitimacy of the regime (Carey and Mitchell, 2016). How can an organization that violates human rights provide more legitimacy to the government? Studies on militias, moreover, do not differentiate between militias by their objectives, but rather just assume that both could be true.

In addition, doubt can be cast upon the plausible deniability itself, as politicians and army officers have still been held accountable for the actions of militias, even when their link is held secret. For example, Spanish politicians (most famously a minister) and security officers were prosecuted for their ties to death squads (*Grupos de Acción Local*, or GAL) that hunted down alleged ETA members and supporters. Likewise, in Colombia many politicians and army officers were convicted because of their collusion with the paramilitary forces in

---

<sup>3</sup>More on this in chapter 4.

the so-called ‘parapolitics scandal’<sup>4</sup>.

Regarding international accountability, the literature also points to militia use as a way of escaping this and thus ensure that aid keeps flowing (Carey, Colaresi and Mitchell, 2015). For the plausible deniability argument to work, we would have to assume that the international community only cares about (or at least is much more concerned with) human rights violations attributed to the state rather than those committed by non-state actors (such as insurgents and militias). What we assume, in sum, is that the state receives some benefit from the international community not seeing human rights violations attributable to the state, and it also receives some benefit from the human rights violations themselves, which have been secretly delegated to the militias.

Yet, seeing high levels of human rights violations, despite the state not being responsible, would also be suspect. Indeed, suppose that human rights violations reports show that the overall level of victimization remains the same, but the ones attributable to the government are very few or none, and the ones attributable to identified rebel groups also remains relatively constant. Wouldn’t this raise some eye-brows? In fact, there is evidence that the international community may not care. In the case of Colombia, for example, to continue receiving military aid from the US the Colombian government reshuffled army officers accused of collaborating with militias, and the US went along with it. Not only that, president Clinton actually waived aid conditionality (Human Rights Watch, 2001).

The delegation must then be broader than simply the dirty work. Rather, the dirty work would be the type of effort put into place by the militia in order to achieve what the principal wants: to defeat rebels, to silence the opposition, and so on. Moreover, this brings up the possibility that human rights violations by militias may not truly be intended by the government, but rather a price to pay for employing militias.

Indeed, if the state is employing groups that are going to be difficult to control, then it has to be open to the possibility that agency problems will be great. In this particular setting, the state is, in the end, accepting human rights violations and the accountability risk that comes with it as a price to pay for gaining security.

Finally, the literature on militias does not include the state’s regular forces in the story. As has been said before, states continue to violate human rights through their regular forces despite the presence of militias (Stanton, 2015), and the armed forces may even coordinate massacres with the militias (Koren, 2017; Mazzei, 2009; Zelik, 2015). If states will not pay for human rights violations done by their regular forces, why would they delegate them to militias?

---

<sup>4</sup>Ibidem.

## 1.2 Moving Forward

The literature on militias has a consensus on the advantages of militias and the issues that come with the delegation of security tasks. Although there are a few dissident voices (Stanton, 2015; Cohen and Nordås, 2015), the plausible deniability argument dominates the literature. However, as I have shown above there are issues with this line of argumentation that the literature has not addressed, as well as an incomplete investigation into the PA problems that arise from the use of militias.

Moreover, the fact that militias are only compared to the regular forces in passing is problematic insofar it ignores a contextual analysis. This is important because not all states use militias and those that do use them do not do so all the time, which means that most of the time states consider their regular forces to be more than enough to safeguard them. Likewise, since the regular forces continue to violate human rights even in the presence of militias, and that responsibility for violations by militias still falls on politicians and army officials, the use of militias cannot be understood as delegating atrocities but rather atrocities as a by-product of using militias that can run rampant.

As such, I argue that the advantages of militias must be weighed against both the costs and risks of using them and against the benefits that the state's regular forces provide with some costs and risks as well. Overall, then, what is needed is a general, coherent framework that allows for understanding under which circumstances the state uses militias in addition to and/or instead of its regular forces, given the trade-offs mentioned above.

My proposal is that we view the state as a producer of security whose available tools for the job (policy choices) are regular and irregular forces. These forces are not only substitutable but also inherently risky to use. As such, I incorporate the insights of the literature (advantages and risks of militias) into a general theory that explains the state's decision to use militias as a cost-benefit calculus embedded in a specific context, both in regards to the characteristics of the potential militias, as well as those of the state itself and the circumstances it faces.

By focusing on these trade-offs, this study offers a broad and coherent framework with which to understand militia use. The contribution of this work is manifold. First, by problematizing the conventional wisdom and presenting evidence against it (which supports the theory herein), this study allows the field to move forward in a more theoretically sound direction (see chapter 3). Indeed, it is my goal with this theory to change the way we typically think of militias.

Second, it allows for a better understanding of the state's calculus of using armed groups outside of their typical structure, as well as how the state combines both regular and irregular

forces. In particular, it brings home the point that the state is actually substituting between forces inasmuch what it spends on one is no longer available to spend on the other one (see chapter 4), and so it opens the way forward to understanding how the state combines its available forces.

In addition, the theory provides us with more implications that have been tested in these pages. Thus, it is a source of research material that allows building a cohesive and coherent research agenda. I hint at future possible studies regarding topics such as military quality, the state's available resources, international accountability, and the history of conflict.

This study is also of interest to policy-makers and, especially, to human rights advocates. In this study, and in chapter 3 in particular, I argue that states are less likely to use militias that more likely put civilians at risk the better the domestic accountability measures are in place (and hint at the same with international measures), especially the judiciary. Thus, to better protect human rights throughout the world I argue that directing efforts to improve judicial systems and hold executives accountable for how they produce security to the regime is of the utmost importance.

Likewise, the implications of force substitution that I explore in chapter 4 may actually allow for holding the government more accountable for civilian victimization in civil wars. I argue that the patterns of regular force deployment, combined with patterns of human rights violations, may allow for predicting militia activity and may therefore allow NGOs and constituents to suspect that the government is colluding with a violent militia.

That being said, it is not my wish to say that governments should never use militias, as it is not true that all of them pose an inevitable danger to civilians. Rather, what policy-makers can learn from this study is that states can maximize their security production by combining forces in such a way that the risks to civilians is also minimized, and therefore the overall wellbeing of society could be improved in the long-run. It is impossible to deny that different structuring of the security apparatus holds great advantages (even powerful states use militias), but as long as all forces are kept in check this need not allow for human rights violations.

# Chapter 2

## An Economic Theory of Pro-Government Militias

### Introduction

States faced with a security threat spend resources on their armed forces in order to keep their populations in check, secure their territories and defeat any opposition, armed or otherwise. However, many states also spend on irregular forces during turbulent times (or to prevent them). Forcefully, whatever costs come from using irregular forces eat away the resources available for spending on the regular forces. In other words, there is a trade-off inherent to using either the regular or irregular forces vis-a-vis one another. At the same time, the combination of both types of forces may be more effective than solely relying on one or the other, since each may have its advantages to bring to the fray, and, by combining them, each force's weaknesses may be balanced by the other's strengths (or balancing each other, as in the case of coup-proofing). Thus, to better understand the circumstances in which states use militias it is necessary to evaluate the trade-off between allocating resources to one or another, rather than relying on a single one.

The theory presented here aims at understanding under what circumstances do states use irregular forces and, once they decide to do so, how they allocate resources among their available forces. To develop my argument, I model the state's choice of the use of regular and irregular forces as a firm's production function. I follow a similar line to Palmer and Morgan (2006), who model foreign policy as the production of goods (i.e., desirable outcomes) by the state, in which each policy in the state's portfolio is an input for said production. In my model, however, the state produces a single good, security, whose production has a negative by-product or 'bad': liability. The first subsection presents the argument informally, and the



second the formal model.

## 2.1 Providing Security: The Good and the Bad (and the Ugly)

States devote part of their total budget to military efforts in order to face various and sundry internal threats to their survival, such as terrorism, rebellion, mass dissent and protest, among others. In this regard, we can think of a state as a firm producing a good: security. This good relates to the political stability of the country and the maintenance of control over population and territory, and defeating the opposition, armed or otherwise. To produce security, the state spends resources on the instruments it has at its disposal, regular and irregular forces, based on how cost-effective they are. However, spending on either instrument comes with an undesirable consequence: both forces may become liabilities to the state: they may shirk their responsibilities, which subtracts from their security efforts; they may commit human rights violations, as carrying out security tasks through certain tactics could result in the abuse (or death) of civilians and make the state be held accountable for such actions. Moreover, at the extreme they may turn against the state: the military may stage coups and militias may become rebel groups themselves.

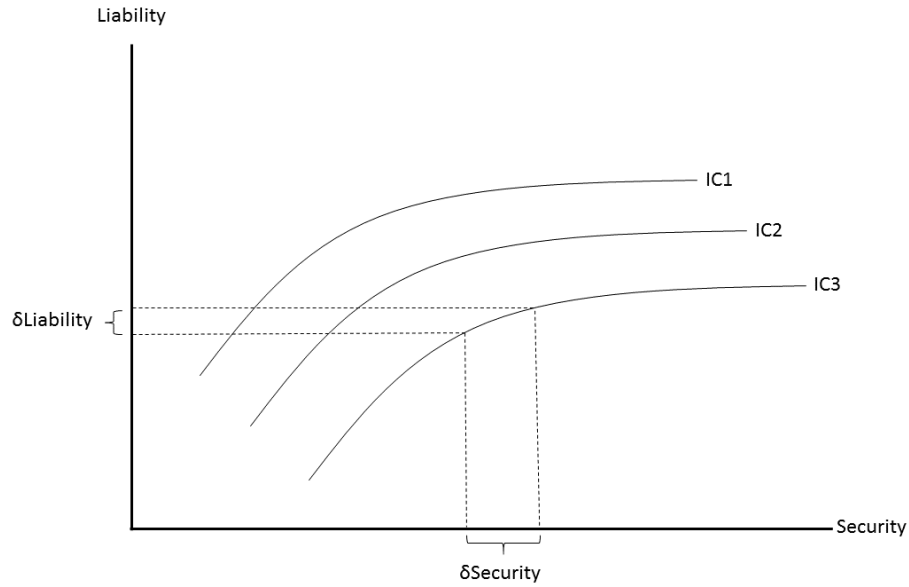
Thus, the state produces both a ‘good’ and a ‘bad’ through the use of its available forces, and it is through balancing how much of each is produced that the state maximizes its utility. Figure 2.1 below describes the situation graphically. The horizontal axis depicts the level of security, whereas the vertical depicts the level of liability. Since the state’s utility is increasing in the first but decreasing in the second, then any increase of the ‘bad’ must be compensated by a substantial increase of the ‘good’. As can be seen in the graph, this results in indifference curves that look like logarithmic functions. Any increase in liability must be compensated by a greater increase in security. Alternatively, we can consider the increase in liability as another cost of increasing security. In sum, the state is willing to tolerate some amount of liabilities (whatever they may be) if it means that security threats will be dealt with.

The state’s available instruments for the production of security are the regular armed forces, such as the army and the police, and the irregular forces, such as militia groups<sup>1</sup>. What the state faces, then, is an optimization issue: how to distribute its available resources

---

<sup>1</sup>There are, of course, many other ways in which states deal with security threats, such as gaining international support and intervention, resource redistribution, negotiation, etc. The task at hand, however, is to analyze the calculus of deciding which armed forces to use, and how much of each. For simplicity, then, I assume that these are the only two inputs available

Figure 2.1: The State's Indifference Curves



between its regular and irregular forces. This choice is dictated by each force's efficiency in the production of security while minimizing how much liability is produced.

Indeed, each force may be better suited to deal with different kinds of threats. For example, a militia's origin in a given region endows it with greater knowledge of the population and terrain of said region, which gives it an edge relative to the army and the police. On the other hand, the army may be better suited, for example, to carry out open-field engagements with rebels, given their training, discipline, and equipment. At the same time, however, both forces may become liabilities: both forces may violate human rights, produce collateral damage, such as civilian casualties and the destruction of private or public property, shirk their responsibilities, or even switch sides and stage coups (regular forces) or become rebels themselves. Moreover, the state could also be held accountable for the bad actions either force does.

How does the state allocate its available resources? In the model, the state compares the security and liability production of each force to one another, mediated by how important the good and the bad are to the state, and then spends on each in proportion to how their net efficiencies compare. The trade-off between regular and irregular forces is highly context-sensitive, as it is not only a calculus of higher security production, but also of minimizing liability, given the available resources. Indeed, although a state would greatly benefit from using militias given a security concern, it may refrain from doing so because it is not willing to

face the liabilities that come with them. Likewise, in a case that militias would produce very little liability relative to the regular forces, a state may choose to not use them nonetheless because it doesn't have a pressing security need for them.

Under what circumstances, then, does the state choose to use regular or irregular forces, or a combination of both? The answer that the model gives us is that the state will distribute all available resources between both types of forces based on the proportion in which they produce security (minus liability) for the state. The allocation of resources thus depends on how many are available, the net effectiveness of each force (that is, how much each force contributes to the state's utility level based on the security-liability trade-off), and how salient the good and the bad are for the state. The following section presents the formal theoretic model.

## 2.2 The Theory Formalized

I model the state's allocation of resources to meet its security provision as a firm's production of a single good with a negative by-product. The state has two instruments (or inputs) at its disposal: the regular forces and the irregular forces<sup>2</sup>. Both produce a good and a 'bad', security and liability, respectively, at different rates.

By providing security I mean producing the means with which the state effectively controls and defend its territory, regime, and population. By liability I mean risks to the state's well-being that stem from having either or both forces active: damages to property, income, and population by either force, as well as the chances that the forces will switch sides and stage coups or rebellions. A more general way to interpret both is to think of the production of security as the production of military capabilities and liability as indirect costs of this production.

Note that, contrary to the conventional wisdom, I am not assuming that the state uses irregular forces necessarily because it wants to have them violate human rights, but rather human rights violations are an indirect cost or liability of using irregular forces to provide more security.

The state's utility is given by the production of the good and the bad, weighed by how important each is in relation to the other. The state's utility function is as follows:

$$U = AQ_S - BQ_L \tag{2.1}$$

---

<sup>2</sup>I do not differentiate between types of regular and irregular forces used, such as police and army in regular forces or semi-official and informal militias in the irregular forces, but the general theory could be expanded to cover such complexity

Where  $Q_S, Q_L \geq 0$  are the produced quantities of the good and the bad, respectively, and  $0 < A, B < 1$  represent the relative salience of each. I chose to model the utility as a linear function because of its generality and tractability, which will become especially apparent as the model is further developed below. As was explained above, we can think of the bad as an undesirable by-product of the security efforts of the state. Thus, the state will put up with some amount of the bad in order to enjoy more of the good, and I represent this by simply subtracting the bad from the good.

The good and the bad are produced by allocating resources to the available instruments, regular and irregular forces. A difficult characteristic to assess regarding militias is whether they were created by the state or sprung independently. Indeed, especially in the case of militias with covert links to the government, the existence of some of them is only well-recorded after they have ceased to exist (Carey, Mitchell and Lowe, 2013), and in many cases the government's involvement in the creation of militias is unclear. What we do know, however, is that the government either creates militias or establishes links with existing ones in order to enlist their help in the preservation of the regime. Our interest based on the model is not whether the state creates a militia, but whether it uses one. Although it may seem like a small difference, our objective is to focus on the use of militias rather than on their creation, as what the model tells us is how the state balances the use of regular and irregular forces. The origin itself of the militias is thus out of the scope of this dissertation and thus I am assuming that both regular and irregular forces are, potentially, readily available to the state.

Let  $I_r$  and  $I_i$  denote how many resources are devoted to the regular and irregular forces, respectively. The use of the instruments is constrained by the state's defense budget. I assume that the state will allocate all available resources in its defense budget:

$$b = I_r + I_i \tag{2.2}$$

The state must choose how many resources to allocate to each, but it may choose to spend on either one exclusively. I thus assume that  $I_r, I_i \geq 0$ . This also allows for avoiding negative quantities being spent on each of the forces when deriving the optimal resource allocation. Negative spending is used to represent short-selling commodities or securities, which in this particular model could be made to represent the selling of military equipment or hiring out members of the armed forces to other states or organizations. However, this consideration would be beyond the purpose of this model for two reasons: first, having the totality of resources allocated to one force be negative would mean that the whole force has been hired out and thus, especially in the case of  $I_r < 0$ , the state would have no armed forces at its disposal. Relatedly, the objective here is to understand the use of both types of

forces in providing security, and short-selling would be inadequate to consider.

I further assume that spending on each force has diminishing marginal returns, so each new unit allocated provides the state with lower and lower increases in the production of security. This can be clearly seen from a small thought experiment: imagine increasing the personnel available to guard a very small territory from zero to ten soldiers and then comparing this security gain with that of going from a hundred to a hundred and ten soldiers. The latter may not provide as drastic an increase in security as the former, since one hundred soldiers may have already been able to secure our hypothetical territory. At the higher end of spending, then, each new unit would increase security production by an amount quite close to zero. I assume the same for liability: the killing of the 101st civilian would very likely be considered as worse than the killing of the 1,001st civilian.

I thus choose the functional form for security and liability production as logarithmic. Although this means that in the lower ends I may be over or underestimating how much of the good and the bad are produced by each force, on average this shouldn't be a problem. In sum, I model both security and liability production for both forces as the logarithm of the amount spent on each, which gives us both the desired decreasing marginal returns and a very tractable form. The production functions of the good and the bad are thus defined as follows:

$$Q_S = \alpha_1 \log(I_r + 1) + \beta_1 \log(I_i + 1) \quad (2.3)$$

$$Q_L = \alpha_2 \log(I_r + 1) + \beta_2 \log(I_i + 1) \quad (2.4)$$

Where  $\alpha_1, \beta_1 \geq 0$  and  $\alpha_2, \beta_2 \geq 0$  capture how much each of the forces produces security and liability, respectively, per resource allocated. Note how this functional form conditions the increases in utility by each force: the more a state spends, all else equal, the less effective the next unit spent would be in producing utility for the state. The all else equal assumption is quite important here, as it means that, as the amount of resources allocated increases, the efficiency parameters do not change (i.e., that greater resource allocation does not come with a change in technology that would qualitatively change either force). This, however, may not be quite realistic empirically, as we may not be able to disentangle resources available from military quality (see the discussion above on the functional forms), but I will deal with this issue below.

Note that I added one to each of the quantities inside the logarithms. This is to ensure that it would be possible for the model to give us corner solutions, that is, situations in which all resources are spent on a single force rather than distributed between them. Otherwise,

spending zero resources on any of them would give us  $\log 0$  and thus an undefined solution<sup>3</sup>. Replacing the good and the bad as a function of the available instruments in the state's utility function we have:

$$U = A(\alpha_1 \log(I_r + 1) + \beta_1 \log(I_i + 1)) - B(\alpha_2 \log(I_r + 1) + \beta_2 \log(I_i + 1))$$

Which reduces to:

$$U = (A\alpha_1 - B\alpha_2) \log(I_r + 1) + (A\beta_1 - B\beta_2) \log(I_i + 1) \quad (2.5)$$

Thus, the greater the difference between producing security and liability, mediated by their relative importance, the better an instrument is at producing utility for the state. However, since each instrument provides increases to said utility at a decreasing rate, it is likely that the state will use a combination of instruments rather than solely rely on one.

Combining the utility function with the budget constraint (equation 2.2) and the non-negativity constraints of the instruments, we can form the Lagrangian in order to maximize the state's utility:

$$\mathcal{L} = (A\alpha_1 - B\alpha_2) \log(I_r + 1) + (A\beta_1 - B\beta_2) \log(I_i + 1) + \lambda(b - I_r - I_i) + \mu_1 I_r + \mu_2 I_i \quad (2.6)$$

Taking the first-order conditions (FOCs) regarding the instruments, we have:

$$\frac{\delta L}{\delta I_r} = \frac{A\alpha_1 - B\alpha_2}{I_r + 1} - \lambda + \mu_1 = 0 \quad (2.7)$$

$$\frac{\delta L}{\delta I_i} = \frac{A\beta_1 - B\beta_2}{I_i + 1} - \lambda + \mu_2 = 0 \quad (2.8)$$

And the three constraints:

$$\lambda(b - I_r - I_i) = 0 \quad (2.9)$$

$$\mu_1 I_r = 0 \quad (2.10)$$

$$\mu_2 I_i = 0 \quad (2.11)$$

---

<sup>3</sup>Moreover, a quantity lower than 1 spent on any would yield the nonsensical case of negative production of utility and liability.

Equation 2.9 recaptures the assumption made above that all the budget is spent, whereas equations 2.10 and 2.11 capture the non-negativity of the instruments. Using the FOCs we can study the state's decision to use militias and how it distributes its resources among both types of forces. The following sections present both the solutions and general implications of the theory.

## 2.3 Choosing to Use a Militia

We can use the FOCs to determine the conditions in which using a militia is worthwhile for the state to spend on. To do so, we start from the case that the state only uses regular forces. If such is the case, then it must be that  $I_i = 0$ , and so replacing  $I_r = b$  and  $\mu_1 = 0$  into the first FOC (equation 2.7) we can solve for  $\lambda$ :

$$\frac{A\alpha_1 - B\alpha_2}{b+1} - \lambda + 0 = 0$$

$$\lambda = \frac{A\alpha_1 - B\alpha_2}{b+1} \quad (2.12)$$

Replacing  $\lambda$  in the second FOC we can solve for  $\mu_2$ :

$$\mu_2 = \frac{A\alpha_1 - B\alpha_2}{b+1} - (A\beta_1 - B\beta_2) \quad (2.13)$$

This is the shadow price of using irregular forces, that is, how much the utility function would change if we relax the constraint  $I_i = 0$  (i.e., the change in utility for an increase of one unit in the right hand side of  $I_i \geq 0$ )<sup>4</sup>. Note, however, that the shadow price is presented with the opposite sign as the change in the objective function: if the shadow price is negative, it means that by using irregular forces the state would increase its utility, whereas a positive shadow price means that using the irregular forces actually decreases its utility. The shadow price can thus be interpreted as the opportunity cost of using militias: if it's negative it means that the state is foregoing some utility by not using militias, whereas a positive one means that the cost of militia use is not worthwhile. Thus, as long as  $\mu_2 \geq 0$ , the state will not allocate resources to the irregular forces.

A negative shadow price thus indicates the case in which a state will use a militia. For the shadow price to be negative it must be the case that  $A\beta_1 - B\beta_2 > \frac{A\alpha_1 - B\alpha_2}{b+1}$ . Put differently, what the first 'unit' spent on irregular forces adds to the utility function of the state must

---

<sup>4</sup>The shadow price, however, does not tell us about the optimal allocation of resources, only that increasing the constraint's right-hand side by one unit would mean a  $-\mu_2$  change in the utility level. The optimum combination will be explained in the next section below.

be greater than the (roughly) average contribution of a ‘unit’ spent on the regular forces to said function if all resources were spent on the latter.

As was discussed above, a militia can either be formed by the state or it can form on its own. According to Staniland (2015), in the latter case a state will pursue one of several strategies: it can suppress, tolerate, collude with or integrate them into the regular forces. We can use the shadow price to understand the state’s behavior towards militias in light of Staniland’s classification: if the shadow price is negative, then the state would create a militia or make use of an existing one. If the shadow price is zero, however, then the state would not create a militia but would tolerate one that already exists. Finally, a positive shadow price means not creating a militia or suppressing an existing one.

### 2.3.1 Choosing to Only Use Militias

The same analysis can be conducted for the case in which the resources spent on the regular forces would be zero. Although in general terms this could seem nonsensical (there exist no states that do not employ regular forces), it may seem more plausible if we make our analysis on the subnational level: we may find that a state chooses to use a militia in a given territory instead of the regular forces or a even combination of both.

Peru’s fight against Sendero Luminoso (Shining Path) may be an example of this. In remote agricultural communities peasants organized into groups called *Rondas Campesinas* to defend themselves from cattle thieves and petty crime, since state presence was lacking. The Fujimori government took advantage of the existence of these *Rondas* and provided them with resources and weapons in order for them to fend off advances by the rebels in remote regions, rather than providing a garrison. In some small regions of Peru, then, the regular forces were replaced by a militia.

Going back to the model, if  $I_r = 0$  then by solving for  $\mu_1$  in the first FOC (equation 2.7) we can find the shadow price of using regular forces:

$$\mu_1 = \frac{A\beta_1 - B\beta_2}{b+1} - (A\alpha_1 - B\alpha_2) \quad (2.14)$$

A state will decide to only use militias in a certain area if the regular forces’ shadow price is positive:  $\frac{A\beta_1 - B\beta_2}{b+1} > (A\alpha_1 - B\alpha_2)$ . If we interpret the Peruvian case in this light, we could see how, with so few resources available for these regions, arming a militia that had privileged information regarding local conditions was a much more effective option than sending the army in, especially since this would mean thinning army presence somewhere else. Moreover, since this militia was created by locals with the objective of protecting themselves and their property, potential abuses against other civilians were not likely, and their small size and



direct connection with the government would have prevented them from becoming a threat to Peruvian authorities.

## 2.4 Combining Forces

If the state decides to use both forces, then we can use the model to learn how much goes into each and how changes in the parameters influence the amounts being spent on each. From the first two FOCs we can compare the Marginal Returns of Utility (MRU) of the use of both forces by simply solving each FOC for  $\lambda$  and then equating the resulting expressions:

$$\frac{A\alpha_1 - B\alpha_2}{I_r + 1} = \frac{A\beta_1 - B\beta_2}{I_i + 1}$$

Which can be reordered as the following:

$$\frac{I_i + 1}{I_r + 1} = \frac{A\beta_1 - B\beta_2}{A\alpha_1 - B\alpha_2} \quad (2.15)$$

That is, the proportion between the amounts spent on each force roughly equals the proportion between their net efficiencies. We can then solve for each of the instruments. For example:

$$I_r = \frac{A\alpha_1 - B\alpha_2}{A\beta_1 - B\beta_2}(I_i + 1) - 1$$

Suppose that the proportion  $\frac{A\alpha_1 - B\alpha_2}{A\beta_1 - B\beta_2}$  equals to 1.5. This means that  $I_r = 1.5(I_i + 1) - 1$ , and so by the budget constraint we have  $I_i = (b - 0.5)/2.5$ . Suppose  $b = 100$ , then we have  $I_i = 39.8$  and  $I_r = 60.2$ .

Consider equation 2.15 closely: the amount of  $I_r$  used will increase as  $\alpha_1$  increases, but will decrease as  $\alpha_2$  increases, mediated by the salience of security and liability. That is, the more effective the regular forces are at producing security with as little liability as possible, the more resources will be allocated to them. Likewise, increases in  $\beta_1$  and  $\beta_2$  will decrease and increase, respectively, the amount of  $I_r$  that the state uses, since these changes would mean that the efficiency of  $I_i$  is increasing/decreasing relative to  $I_r$ .

More specifically, the amounts spent on each instrument, in terms of the budget, are:

$$I_r = \frac{(b + 1)(A\alpha_1 - B\alpha_2) - (A\beta_1 - B\beta_2)}{(A\alpha_1 - B\alpha_2) + (A\beta_1 - B\beta_2)} \quad (2.16)$$

$$I_i = \frac{(b + 1)(A\beta_1 - B\beta_2) - (A\alpha_1 - B\alpha_2)}{(A\alpha_1 - B\alpha_2) + (A\beta_1 - B\beta_2)} \quad (2.17)$$

Taking either one, we could see the effect of each parameter on the amount spent on either force.

If the state decides to use a militia, then it is accepting two trade-offs. The first is that it is gaining some security in exchange for some risk, as was discussed above. The second is that there may be a substitution of forces. Recall equation 2.15:

$$\frac{I_i + 1}{I_r + 1} = \frac{A\beta_1 - B\beta_2}{A\alpha_1 - B\alpha_2}$$

According to the model, in order to spend resources on a militia, the state has to stop spending (spend less) on its regular forces. Consider a scenario in which the right-hand side of equation 2.15 equals  $\frac{1}{10}$ . That is, the state is roughly spending 90% of its resources into regular forces and only 10% into its militias. Suppose that, in a country involved in civil war, the security situation becomes one in which the share of the population suspected of aiding rebels increases. Based on the discussed advantages, we would expect that militias become relatively more effective at providing security. Suppose then that the right-hand of equation 2.15 now equals  $\frac{2}{10}$ . The new distribution of resources would thus be 80% into regular forces and 20% into militias.

What equation 2.15 defines is the basis for the substitutability of forces: when the security needs make militias relatively more effective than the regular forces, and the risk of using militias is not very high relative to their benefit, mediated by the salience of each, then the state will increase their use. This necessarily means, all else equal, decreasing the use of the other one. The state thus not only combines forces but also substitutes them as the need arises.

## 2.5 Implications

What do the model solutions mean substantively? From the necessary condition  $A\beta_1 - B\beta_2 > \frac{A\alpha_1 - B\alpha_2}{b+1}$  for allocating resources to irregular forces we can clearly see how each parameter contributes to the likelihood of militia use. Likewise, from equations 2.16 and 2.17 pertaining the combination of forces, we can see how the amount spent on each force is impacted by changes in each parameter. Below I explore the impact of the budget constraint, security and liability production, and the relative salience of the good and the bad.

### 2.5.1 The Budget Constraint

Recall that a state will use irregular forces if and only if  $A\beta_1 - B\beta_2 > \frac{A\alpha_1 - B\alpha_2}{b+1}$ . All else equal, the greater the budget, the more likely the state will use a militia. The assumption ‘all else

equal' in these budget considerations is extremely important. Indeed, in reality, changes in the military budget of a state are very likely to be tied to access to new arms and technology, which would inevitably impact the efficiency parameters of the model and thus require a new optimum to be calculated. The insights regarding the budget must then be interpreted with care. In the cases of (relatively) small increases in the resources available for the production of security, it wouldn't be far-fetched to assume that the other parameters hold constant and thus the best alternative could be to simply to start spending on the irregular forces.

The reasoning behind this is not simply that the more resources a state has the more of everything it does. Rather, the more a state has spent on the regular forces, the lower the return on utility of the next unit spent, all else equal. This would be a case in which the army is reaching a point of near saturation, that each new unit spent brings about very small increases to the utility function (at least compared to the potential benefits of a militia), and so starting to use irregular forces is optimal. In this sense, my model presents an alternative explanation to the findings of Böhmelt and Clayton (2018) that the greater the GDP of a state, the more likely it is to use auxiliary forces.

If militias are already in use, then an increase in the budget, all else equal, would mean that more is spent on each one, but the proportion of the distribution remains the same. Indeed, according to equation 2.15, the distribution of resources is based on the net efficiency of each force, but only the gross amounts, not the proportion, depends on the total budget. Empirically, however, it may be the case that increases in resources are not independent from changes in the effectiveness of each force. Nevertheless, the regular forces may not be able to absorb all of the new resources effectively.

Indeed, evidence from Colombia suggests that exogenous increases in the resources available for war find their way into both types of forces: a fraction of the resources given to the Colombian army by the US government seems to have been funneled into the United Self-Defense Forces of Colombia (AUC) (Dube and Naidu, 2015). It may be argued that this increase in the war budget was substantial enough to improve the army's technology (i.e., not all else was equal). Yet, it must not have been a large enough impact, since it was deemed more effective to give some of it to the AUC.

Three conclusions come from budget considerations: all else equal, (1) the larger the budget the more likely a state will use militias, (2) sufficient increases in the budget will allow a state to start using militias, and (3) if a militia is already in use, then an increase in resources will result in a higher spending on both forces. Thus, by analyzing available country resources and sources of resource change we could pinpoint which countries would be more likely to use militias. Here I briefly explore some of these.

Regarding the first, the larger a country's economy, for example, the more resources it has

available for dealing with a security threat, and so the more likely it will be able to support both regular and irregular forces. Moreover, increases in GDP would make a state more likely to use a militia, provided that such an increase would not provoke a modernization of the regular forces.

Regarding the second, the military budget may also increase because a state is receiving aid from another. This comes in two flavors: first, general aid (such as developmental aid) increases the overall resources of a state. An aid recipient thus could be able to spend more on its military budget because some of its other financial obligations are met through the aid. In this specific case, the model gives us an alternative explanation to the work of Carey, Colaresi and Mitchell (2015), who find that aid-dependent countries are more likely to use militias.

The second type of aid that interests us here is military. Receiving more money, weapons and armament may allow the state to have enough to spend on militias even if the military aid means a change in the efficiency of the armed forces. Think about an arms transfer to a state involved in civil war. It is likely that this transfer will result in a surplus of weapons, which may then be used to equip a militia with (better) arms. Likewise, a purely financial transfer may indeed bolster the capabilities of the regular forces, but they may not be efficient enough to absorb all the new resources rather than partially allocating resources to a militia. For example, the United States' military aid to Iraq and Afghanistan was partly devoted to tribal militias and village security forces.

A general implication of this is that donors may be inadvertently propping up militias around the world, thus potentially undermining the safety and development of the communities they are trying to empower in the first place. Moreover, aid may directly or indirectly increase the funding for militia that are already active. Dube and Naidu (2015) shows evidence of this for the Colombian case. What this implies is that donors must take into account the possibility of fund diversion towards groups that they may not wish to fund. Thus, if the international donor community wishes to curb the use of militias that are potentially dangerous to civilians, then aid must come with conditionality that directly addresses this<sup>5</sup>.

### 2.5.2 Efficiency: Security and Liability

The model tells us that the greater the efficiency of a potential militia, the more likely that a state will use it. However, key to the model is that the use of militias depends not just on how they may fare but how the regular forces fare. In other words, we should see militias in circumstances in which, all else equal, militias are sufficiently effective in comparison to

---

<sup>5</sup>See chapter 3 below.

the regular forces to warrant their use. The calculus depends on the security gains and the liability of each. I will explore these below.

First and foremost, for a state to consider using militias to supplement the regular forces there must be a threat present: insurrections, protests, coup attempts, or a high risk of experiencing any of these. In general, political instability stretches regular forces. Experiencing or expecting to experience violent and non-violent campaigns against the state is the first drive of using militias. However, not all states with instability use militias, as their regular forces may prove enough to deal with the threat.

Recall that the model tells us that the more able the military are the less likely the state will be inclined to use militias. Greater technology and training of the armed forces should therefore make it less likely to use militias, all else equal. Taking a sufficiently strong military as the starting point, what causes the regular forces to become less cost-effective relative to the irregular forces in producing security?

The advantages of militias relative to the regular forces (in terms of security provision) are local information, maneuverability, and low costs of deployment (Carey and Mitchell, 2017). In order to understand their use, we must match these advantages to the type of threat that the state faces or would face and in which context. First, if militias are used because of an informational advantage, then the government must be facing a threat in which there is an informational asymmetry in favor of the opponent. Typically, this is the hallmark of insurgencies relative to other types of domestic threats. In insurgencies, the line between combatant and civilian is blurred, it is difficult to assess who supports whom, and rebels, usually employing guerrilla and terrorist tactics, have a better understanding of the local landscape. A militia, however, helps to level the field because their local knowledge allows for effective intelligence gathering regarding the population and the local terrain.

Along the same lines, the composition of society may make it harder for the regular forces to maneuver: an ethnically diverse society in which ethnic lines align with conflict lines, for example, exacerbates information problems. Indeed, members of the regular forces may face not only language and cultural barriers in their handling of the locals in question, if they are not co-ethnics, but also a general lack of knowledge of the local societal dynamics. A militia whose members are from the ethnic group that the state wishes to police may help solve this. As Lyall (2010) argues, co-ethnics may be better suited for intelligence gathering and controlling the locals.

Second, militias are typically more autonomous than the regular forces: they tend to be light, movable units that are cheap and fast to deploy<sup>6</sup>. Using a militia, therefore, enables the

---

<sup>6</sup>Anecdotal evidence from Colombia shows that members of a militia usually carried equipment that weighed a fraction of that of the military, and they could set up and break camp much faster than the army.

state to have a quick response to threats and have units that are able to maneuver through rough terrain. In this regard, a militia can function as a rebel group that uses guerrilla tactics: the militia can quickly mount an offensive and retreat as quick. Like insurgents, then, militias use hit-and-run tactics and terrorist attacks.

Finally, militias are a cheap force multiplier. If the regular forces are stretched too thin, then militias may become a viable option to extend the state's control without much additional cost. Alternatively, militias would allow to cheaply police the population, whether inside or outside the conflict zone, in order to free resources that would go towards the battlefield<sup>7</sup>. We must thus identify situations in which cheap deployment is needed. The number of battlefronts determines how much the state needs to divide its forces across territory. An insurgency spanning most (if not all) of the country, or facing multiple rebel groups can be such cases. Moreover, if the state faces an external threat, then its regular forces are already engaged along the borders or beyond, and so militias may be an ideal candidate to secure internal matters while the army handles the external threat.

However, despite experiencing a threat to security, not all governments employ militias. Indeed, although militias may present the government with an efficient way of producing extra security, they may also come with a high price in terms of liability. The gain in security is thus conditioned by liability minimization, and this applies to regular and irregular forces. Both forces may produce collateral damage: civilian casualties and destruction of property. Both may also shirk their responsibilities, engage in criminal activity and plunder, and maybe even turn against the state. Regular forces may attempt a coup to take control of the state or change the leadership and militias may become rebel groups themselves and engage the regular forces.

The amount of liability produced depends on how much control the state has over each of the forces. The more autonomous the forces are, the more likely that excesses and side-switching may occur. Indeed, many militias are actually established to secure the elite rather than the country: they are one possible coup-proofing mechanism. In terms of the model, the security provided by these particular militias offsets the liability produced by the regular forces in terms of the risks of experiencing coups.

The state must assess how much of a risk it takes on when using irregular forces. If the state expects not to be able to have much control over militias then it may prefer not to employ them or only use them, for example, in regions in which the damage militias can do is minimized. In that regard, the more important a location is, whether militarily or economically, the less likely a militia would be used because the liability may be greater. Likewise, the state would prefer to minimize the human costs of militia use (i.e., civilian

---

<sup>7</sup>Notice how this echoes the budget considerations explored above

victimization), particularly in regions whose population the state heavily depends on.

The liability produced by the excessive use of force by either the regular or irregular forces can be aggravated by how much the state is held accountable for the actions of either. The damages caused by a militia (or the regular forces, for that matter) may be aggravated if the state were to be held responsible, especially when it comes to human rights violations. A state that is not held accountable for human rights violations does not have to worry about abuses and excesses from either force. One that may be held accountable, however, has to rein in its forces to avoid abuses. Since it may not have as much control over militias, then they may engage in abuses more frequently. As such, deciding whether to use a militia might depend on how much the state can control it so that it does not have to pay for the militia's excesses - if accountability exists.

Indeed, governmental and military officials around the world have faced trials for their ties to militias, which means that they either miscalculated the chances of being caught or accepted the risk because of how much security benefits they would obtain<sup>8</sup>.

Accountability for human rights violations stem from two sources: international and domestic. Internationally, for example, we know from Carey, Colaresi and Mitchell (2015) that states are more likely to use informal militias if they are further away from democracies, since they wouldn't be monitored as easily. Other factors that could increase international accountability, and therefore make it costlier to use militias, are ratified human rights treaties, which make states vulnerable to pressure from other states, (I)NGOs, and domestic players if they do not comply (Hathaway, 2007; Simmons, 2009). Moreover, many of these treaties require states to report on their human rights record. Although it is self-reporting, there is an increase in pressure to uphold human rights.

Domestically, we could think of institutional factors, such as regime type and checks and balances systems, as well as domestic interest groups that could hold the state accountable for the actions of militias. For example, a strong judiciary could bring leaders to trial; media freedom and access would mean that there is investigative journalism effective enough to uncover militia connections to the state; and Human Rights (I)NGOs may pressure the government into not using militias. Not only that, human rights treaties also help domestic communities into pressuring their governments (Grajales, 2017).

If militias are already in use, then changes in how much a force produces security relative to the other will result in more money being spent on the one that is now relatively more efficient. Likewise, an increase in liability of one force, all else equal, will result in spending less on the same.

---

<sup>8</sup>Note that this is also true of the regular forces: some states are only held accountable for their army's behavior if the whistle is blown (e.g., the Abu Ghraib scandal)

What the theory points us towards is an analysis of changes in the dynamics of conflict and the characteristics of the state. For example, if rebel groups start using tactics that exploit informational asymmetry, then the new security concerns may tilt the favor into using more irregular forces.

We could also consider these issues sub-nationally: since security concerns (e.g., civil wars) rarely cover the entirety of a state's territory, then we should expect the security calculus to vary from region to region. Likewise, the risk of using militias may be higher in some regions than in others. We may thus use the theory to understand how the use of regular and irregular forces varies from region to region. Of course, we should expect irregular forces to be more likely in territories experiencing violence or at risk of doing so, but only if the risk of side-switching, collateral damage and civilian victimization is comparatively low.

In sum, what the model tells us regarding the efficiency of forces is that there are specific circumstances regarding how much security each force produces and how much of a risk spending on them would be that would make using militias a viable option, and how much of each force to use in any particular situation. However, how security and liability impact the state's utility depends on how salient they are relative to each other. The following subsection explores this.

### 2.5.3 Salience

Changes in salience mean that either security or liability become more important to the state vis-a-vis the other. Since the salience parameters simultaneously affect both forces, their effect is not straightforward: an increase in the salience of security relative to liability, for example, may tilt the balance towards either force, as this change is very sensitive to the rest of the parameters. In order to understand this, it is useful to check the derivative of the irregular forces' shadow price with respect to A or B.

Recall that this shadow price must be negative in order for a state to use militias:  $\frac{A\alpha_1 - B\alpha_2}{b+1} - (A\beta_1 - B\beta_2) < 0$ . Rearranging the terms, we get:  $\frac{A\alpha_1 - B\alpha_2}{A\beta_1 - B\beta_2} - (b+1) < 0$ . For a change in salience to increase the likelihood of using militias (or increase whatever is being spent on them), the left-hand expression must decrease.

Since both salience parameters change relative to each other, we can analyze the derivative of one and simply conclude that the opposite holds for the other. The derivative of  $\frac{A\alpha_1 - B\alpha_2}{A\beta_1 - B\beta_2} - (b+1)$  with respect to A is  $\frac{\alpha_1}{A\beta_1 - B\beta_2} - \frac{\beta_1(A\alpha_1 - B\alpha_2)}{(A\beta_1 - B\beta_2)^2}$ . In order for an increase of A to positively affect  $I_i$ , then this should be negative. Thus, it must be the case that

$$\frac{\alpha_1}{A\beta_1 - B\beta_2} < \frac{\beta_1(A\alpha_1 - B\alpha_2)}{(A\beta_1 - B\beta_2)^2}$$



Which can be simplified to the following:

$$\frac{\alpha_1}{\beta_1} < \frac{A\alpha_1 - B\alpha_2}{A\beta_1 - B\beta_2}$$

And further to:

$$\frac{\beta_1}{\beta_2} < \frac{\alpha_1}{\alpha_2}$$

That is, the ratio between security and liability production by the irregular forces must be smaller than that of the regular forces for an increase in the relative salience of security (which can also be considered a decrease in the relative salience of liability) to result in an increase of  $I_i$ . This is counterintuitive: that security becomes more salient does not necessarily translate into force substitution towards the force with the highest efficiency, but rather the one that gives relatively similar levels of security and liability. In other words, the force with the less net efficiency will benefit from an increase in the salience of security. The opposite holds for an increase (decrease) in the salience of liability (security):  $I_i$  will increase in this case if  $\frac{\beta_1}{\beta_2} > \frac{\alpha_1}{\alpha_2}$ .

Consider the first of the two expressions closely: it is very likely that the inequality  $\frac{\beta_1}{\beta_2} < \frac{\alpha_1}{\alpha_2}$  will hold most of the time. Indeed, regular forces are generally more powerful than militias and the greater control that the state has over them makes them less likely to result in higher liabilities. What the model would then make us expect is that an increase in the relative salience of security will make it more likely that a state will use militias. Likewise, an increase in the relative salience of liability translates into a lower likelihood of using militias.

Likewise, the salience of security relative to liability plays an important role in the division of resources among available forces. As was discussed above, when security becomes more important to the state relative to liability, then the less efficient force actually benefits from this change. Assuming, as above, that the regular forces produce more security and less liability than irregular forces, then when security becomes more important we should expect more resources to be put into irregular forces, even at the cost of regular forces.

This can be seen from equation 2.15. Recall that if the right hand of the equation increases ( $\frac{A\beta_1 - B\beta_2}{A\alpha_1 - B\alpha_2}$ ), then  $I_i$  must also increase. By taking the derivative of  $\frac{A\beta_1 - B\beta_2}{A\alpha_1 - B\alpha_2}$  with respect to A (the salience of security), and then considering the case that this derivative is greater than zero, we can conclude that an increase in A will mean an increase in  $I_i$  if and only if  $\frac{\beta_1}{\beta_2} < \frac{\alpha_1}{\alpha_2}$ , which is the same expression that we have just considered. Thus, the more security becomes important, the more resources would be devoted to militias. On the contrary, the more liability becomes important, the less the state would spend on militias, up to the point of stopping to use them altogether.

What causes changes in the salience of the good and the bad? Consider, for example, the dynamics of a particular civil war: if the rebels are being successful in their campaign, then military success would become more important to the state than safeguarding human rights or avoiding property damage. Moreover, although arming militias could be risky in the future, an assessment of potential defeat by the rebels would decrease how much this is a concern for the state. In this regard, militias would act as some sort of last resort. Loss of territory to the rebels and an increasing amount of casualties on the state's side would thus make it more likely that militias are used, or further spend on them.

Relatedly, if rebels receive outside assistance, such as resources, arms, intel or even soldiers, then the state's assessment of how successful they can be will change. Indeed, since rebels who receive aid are more capable militarily, the state will value providing security more than the indirect costs it brings in order to compensate for the heightened threat.

Liability, on the other hand, becomes more important the more attention is paid to human rights, for example. International pressure is of interest here: the more a state is put in the spotlight for its human rights record, the more salient human rights violations become. Naming and shaming and international sanctioning could thus be associated with an increase in the salience of liability. Domestically, citizen mobilization and the work of the press, NGOs, etc., could make it so that the population is more likely to pressure the state.

## 2.6 Conclusion

The theory presented here aims at explaining how conflict and institutional dynamics determine whether or not militias are used by states. The economic model presented above focuses on the state's decision to allocate resources into its available tools for procuring security, given how effective each one is and how much liability the state is willing to accept for using them. This optimization problem may be thought of in general (i.e., nation-wide) or even from local scenario to local scenario. That is, we can think of our equations as applying to the whole war budget of the state or to the deployment of forces to specific territories given some resource allocation to that territory in order to further explore the microdynamics of the state's provision of security.

It must be noted that the argument used here is decision-theoretic: I take non-state groups as exogenous. My objective is to understand how the state organizes and uses its repressive apparatus given a threatening environment and institutional and resource constraints. The seemingly generalized use of militias around the world tells us that states are willing to make use of them despite how liable they may be (Carey and Mitchell, 2017) to face a plethora of security challenges. In this sense, conceptualizing contestation movements,

whether armed or unarmed, and the militias themselves as exogenous allows for understanding the state's calculus of resource allocation. In other words, militias are generally part of the state's optimal strategy to face domestic threats. What the model helps us understand is what are the precise circumstances that make them so<sup>9</sup>.

The insights of the theory point towards assessing which states use militias and when, and how they are used relative to the regular forces. In this chapter I have broadly discussed several implications of the theory by analyzing the effects of each of the parameters. The following chapters focus on developing some of these implications more thoroughly and testing them empirically.

In chapter 3 I focus on the security-liability calculus of using militias. In particular, I explore how domestic accountability conditions the use of militias, and how this interacts with the presence of security threats (civil wars in particular) in the state's calculus about which forces to use. Through this study, I am able to perform a critical test of this theory and the conventional wisdom, as both lead us to different expectations.

In chapter 4 I focus on policy substitutability. Since the theory tells us that, given a fixed budget, the more a state spends on one force the less it has available to spend on the other, then we should see patterns of substitution across forces. To test this, I present a case study of Colombia's most recent civil war. In it, I explore the relation between the level of activity of the militia and the level of activity of the Colombian Armed Forces.

---

<sup>9</sup>Nevertheless, future research would benefit from taking an approach that gives agency to either rebel groups, opposition movements, militias, or both. Indeed, some research has started to go down this line: Sabine Otto's work, for example, shows how militias and rebel groups switch sides back and forth (Otto, 2015, 2018). Understanding the state's decision-making about using militias may open more avenues of research about the relations between all conflict parties.

# Chapter 3

## Balancing Security and Liability: A Cross-National Study

### Introduction

The economic theory of pro-government militias points to several expectations regarding a country's security situation and how much liability would be tolerable given the security needs, the salience of each and how many resources they have available. This chapter explores some of these implications more concretely. In particular, I focus here on the liability calculus of using militias to respond to a major security threat, such as civil war.

Militias have been identified as the agents that perform the state's dirty work, but the way this is portrayed in the literature is as if atrocities, rather than the security gains they might produce, are the objective of using militias. Moreover, as was discussed in the introduction, what is puzzling about this is that states have continued to violate human rights despite using militias and politicians and army officials have had to pay the consequences of using these groups, even when the connections between the state and the militias were clandestine. The delegation of atrocities and the shift of responsibility may thus be put into question.

This chapter presents an alternative view. Based on the general framework developed above, I explore how security and liability concerns interact to make the use of militia more or less likely. My main focus here is how much can the state be held accountable for the actions of its agents, as this drives the likelihood of using militias in addition to the regular forces. In a nutshell, I expect that militias are more likely to be used, all else equal, in states that a) are experiencing civil wars, and b) have a weak judiciary system. The degree of control over militias, however, is also important inasmuch the more control the government has over these groups, the lower the risk of using them because it can choose whether militias

violate or respect human rights.

Since the plausible deniability argument would actually lead us to expect that the greater accountability there is, the greater the incentive to use a militia in order to avoid being held responsible for human rights violations, and my argument leads us to expect the opposite, this study will allow to perform a critical test of both arguments in a simple way.

The chapter is organized as follows. The first section uses the economic theory of pro-government militias to derive testable implications regarding the impact of the strength of the judicial system on the likelihood of using militias. The second presents the research design and operationalization of concepts. The third section presents the results of the statistical regressions. Finally, the fourth section discusses the conclusions and implications of the findings.

### **3.1 Delegating Atrocities: A Means or an End?**

The conventional wisdom regarding militias, especially those that do not have a clear, official connection to the government, is that they are tasked with doing the regular forces' dirty work: kidnappings, summary killings, civilian harassment, etc. The government thus shifts responsibility away from itself by using militias. This 'plausible deniability' perspective, however, may be flawed in two ways: first, it supposes that states want to, but cannot, violate human rights and so they find agents to do so. This would seem to imply that these violations are an end by themselves rather than a means to achieve something else, such as more control over the population or more security in general, or an unwanted consequence.

Alternatively, it would seem to imply that human rights violations are always beneficial to the state, despite what the literature on the repression-dissent nexus tells us that violent repression may backfire (Davenport, 2007). Not only that, states continue to violate human rights in addition to or even instead of the militias doing so (Stanton, 2015).

The second issue, as was discussed in chapter 1, is that this shift of responsibility is not perfect, as officials from around the world are accused of and sentenced for their ties to militias, which means that either they miscalculated the risks of delegating the dirty work or the alternative to this delegation was, in terms of expected utility, not as good as relying solely on the regular forces. What the economic theory of pro-government militias tells us is that governments employ militias because of the security they provide and in spite of the liability inherent to their use. Since I do not assume that states wish to violate human rights but merely produce more security, then in my model states use militias despite human rights violations rather than because of them.

The use of militias thus depends on balancing security and liability. Recall equation 2.11

(the shadow price of using militias):

$$\mu_2 = \frac{A\alpha_1 - B\alpha_2}{b+1} - (A\beta_1 - B\beta_2)$$

which tells us that a militia will be used if  $A\beta_1 - B\beta_2 > \frac{A\alpha_1 - B\alpha_2}{b+1}$ . Whatever makes  $\beta_1$  and  $\alpha_2$  increase and  $\beta_2$  and  $\alpha_1$  decrease will make it more likely that the inequality holds. As was discussed above, a militia has different logistical advantages relative to the regular forces which could make it more effective in some circumstances: local information, cheap deployment, and autonomy. Thus, depending on the threat that the state faces, using a militia could be part of the optimal strategy.

A state facing the risk of a coup, terrorist attacks, demonstrations and protests by the opposition, or even civil war, might be more capable of safeguarding itself if it uses militias. When there is the risk of a coup, militias provide security to counter the liability that is produced by the regular forces. When the state faces a terrorist threat, militias could be used to both harden potential targets and navigate the population in search of the terrorists in a more cost-effective way than the army. Likewise, using the army to quell popular dissent or sway elections in the incumbent's favor may be too costly, but using militias to do so may be very cheap.

However, I argue that, perhaps with the exception of coups, no security threat is more fertile ground for a militia than a civil war. If war is broadly defined as “sustained, coordinated violence between political organizations” (Levy and Thompson, 2010, p. 5), we can define civil war as an armed conflict in which a “government [confronts] organized, armed opposition originating within the country's borders, with significant military confrontations between government and rebel group forces” (Stanton, 2016, p. 3).

Note that common to notions of (civil) war is the condition of sustained violence, as it differentiates war from other forms of conflict, violent or nonviolent (Levy and Thompson, 2010). Indeed, most definitions of civil war, conceptual and operational, involve not only an element of duration, but also of magnitude, which is usually thought of in terms of casualties (Stanton, 2016). In addition, “states fight domestic challengers in internal or civil wars for the control of the state or for secession from the state” (Levy and Thompson, 2010, p. 7), that is, this phenomenon of organized, sustained violence is at its core a contest for the authority over a territory between two political entities, one of them being the state. As such,

most revolutions, sustained peasant insurrections, “revolutionary” or ethnic insurgencies, anticolonial uprisings, and resistance wars against foreign occupiers are civil wars. On the other hand, violent protests, riots, crime, and low-level

banditry, all of which leave sovereignty pretty much intact, are excluded from this category (Kalyvas, 2006, p. 19).

Why would a civil war make it more likely that a state uses a militia? First and foremost, and as discussed above, civil wars put the leader's survival and the state's territorial integrity at risk. As such, security becomes much more salient than the risks of producing it.

Second, compared to other conflicts, civil wars are particularly taxing to a state's security apparatus. Indeed, the regular forces may be stretched too thin if a rebellion covers many parts of the state's territory. If this were the case, our theory tells us that instead of spending more on the regular forces, starting to spend on militias may be more cost-effective, as with fewer resources more regions could be safeguarded.

Finally, the regular forces may not be as efficient in keeping control over specific localities as a militia might be. Recall that one of the advantages of militias is their privileged information. If rebels and their supporters are hiding within the population, then local militias may have an edge relative to the regular forces in rooting them out, or preventing civilian help to rebels altogether. Moreover, their informational advantage may also give them an edge relative to the regular forces in terms of terrain navigation.

However, the theory also tells us that a militia may be more of a liability than the regular forces. If the risk of using militias is large enough, then a state may forgo their use altogether, despite the advantages they might bring to the table. Since the state has less control over them, it may be more likely that militias shirk their responsibilities more than the regular forces, and even perform activities that may not be sanctioned by the government.

The degree of control over a militia may vary, of course, and as such the type of militia may provide us with different levels of liability. As such, I conclude that, all else equal, the regular forces are less likely to produce liability than militias because the state can make the former toe the line much easier than it can the latter. Within militias, the greater the degree of control over a militia, the lower the risk of using it.

Yet, if the state cannot be held accountable for the actions of militias (or the regular forces, for that matter), then the point may be rendered moot. Put differently, human rights violations by militias may produce different amounts of liability in different states. The key, I argue, is whether the state could be held accountable for the actions of irregular forces, and thus militias would be a greater liability than otherwise. Internationally, the work of Carey, Colaresi and Mitchell (2015) shows that geographic proximity to democracies decreases the likelihood of a militia being active, since it would allow for more monitoring by the international community that is concerned with human rights. Domestically, I posit, it would fall upon the judiciary to punish the executive for a militia's human rights violations.

### 3.1.1 Exacerbating Militia Liability: The Role of the Judiciary

As was argued above, the presence of various security threats is fertile grounds for the use of militias, since they may be more cost-effective than the regular forces. However, not all states experiencing security threats use militias, and those that do use them do not necessarily use them all the time. A key factor, I argue, is how accountable the state can be made regarding the actions of the militias, and domestically this greatly depends on how powerful the judiciary is.

First, a strong and independent judiciary would be able to rule against the state and hold it accountable for the actions of militias. The fact that leaders could be potentially convicted for human rights violations because of abuses committed by either force would encourage them to keep strict controls over its forces or even dissuade them from using militias altogether.

Second, even in cases in which the link between a militia and the state is held secret, they still represent a liability inasmuch a highly independent and effective judiciary correlates with a higher chance that connections between militias and the state would be drawn, despite efforts to keep them clandestine, as access to courts and investigative efforts ramp up with judicial quality.

Indeed, if victims, their families or NGOs are able to blow the whistle, then the judicial branch would be able to punish the executive and the military for the use of militias. In Colombia, dozens of politicians and senior military officers have been convicted for their ties to the AUC. In Spain, security officials and a former minister were accused for the actions of the GAL and tried, despite their effort to keep the so-called dirty war against the Basque separatists secret. I would thus expect that the greater judicial independence is the less likely a militia is to be used. Thus, the greater the power of the judiciary, the less likely we are to see a state using militias.

Our first hypothesis is thus:

***Hypothesis 3.1:*** *The greater the strength of the judiciary the less likely a state will use a militia.*

However, the greater the security threat, the more likely that this calculus changes in favor of using militias. In particular, I have argued that rebel groups represent a threat that the regular forces may not be able to face directly more effectively than in tandem with irregular forces. As was discussed above, militias might present the state with several advantages: they are a cheap option for reinforcing their regular forces, which may be stretched thin as is, and the former typically have more autonomy, which allow them to be quick and flexible in their deployment and activity (Böhmelt and Clayton, 2018). In addition, militias are identified



in the literature as having better local information than the regular forces, which allows for better navigating the geography and the populace and thus root out rebel member and collaborators. Militias thus counter the rebel's information asymmetry advantage (Carey, Colaresi and Mitchell, 2015; Biberman, 2018).

Our second hypothesis is therefore:

***Hypothesis 3.2:*** *Militias are more likely to be used by states experiencing civil war than by those that are not.*

The impact of civil war and judicial strength are not independent from one another, according to the theory. Indeed, the state always considers a security-liability trade-off, which is also determined by how much importance is given to the good and the bad. Recall from chapter 2 that the appearance of a threat would make security more salient for the state relative to liability, and that an increase in the salience of security favors the use of the force that produces the most liability relative to security. In addition, I concluded that, under most circumstances, said force would be the militia.

Thus, not only do civil wars make militias more likely to be used in and of itself, but also change how states assess the impact of the risk of using militias. In this sense, I expect that civil war will moderate the effect of a strong judiciary on the likelihood of using militias.

This leads us to our third hypothesis:

***Hypothesis 3.3:*** *The impact of a strong judiciary on the use of militias is moderated by the presence of civil war.*

Finally, the amount of control the state has over a militia matters: the more autonomous the militia is from the state, the more likely it is to become a liability, as was explained above. As such, we should expect that states are less willing to use the more autonomous militias the stronger the judiciary becomes. If the state has more control over the militias, then the impact of the judiciary's strength shouldn't matter as much because the state can keep these militias in line. Thus, a strong judiciary should decrease the likelihood of using very autonomous militias more than it decreases the likelihood of using less autonomous ones.

Our final hypothesis is thus:

***Hypothesis 3.4:*** *As judicial strength increases, a state is more likely to use a militia over which it has greater control than to use a more autonomous militia.*

Note that the economic theory of pro-government militias produces a different empirical expectation than that of the 'delegation of atrocities' view. According to the former, we

should expect less militia use the more a state can be held accountable, but according to the latter the greater the accountability the greater the incentive of states to use militias in order to shift responsibility for human rights violations away from them. Testing the hypotheses presented above will thus allow for assessing both arguments.

## 3.2 Research Design

To test these hypotheses, I will perform logistic regressions on cross-national data from 1981 to 2007 to zone in on which countries are the ones more likely to use militias. The unit of analysis is thus the country-year. As this test portends to assess a theory that competes with what is found in the literature, for comparability's sake I will use Carey, Colaresi and Mitchell's (2015) as the baseline for this study and incorporate the key elements that the discussion above has shown.

Indeed, the above-mentioned paper is one of the main showcases of the plausible deniability argument: their main finding is that the more a state depends on aid from democracies, the more likely it is to use informal militias. This way, the authors argue, aid-dependent states can continue to violate human rights through militias, while maintaining a good standing with donors and thus not put aid flows at risk. By focusing on the judiciary, I push for a critical test of the plausible deniability argument and my own.

The main dataset to be used is the Pro-Government Militia Database (PGMD) by Carey, Mitchell and Lowe (2013), whose data availability defines our period of study, 1981-2007. This dataset provides us with a dummy variable that tells us whether a PGM was active in a given country in a given year. The authors define a PGM as “a group that 1. is identified as pro-government or sponsored by the government (national or subnational), 2. is identified as not being part of the regular security forces, 3. is armed, and 4. has some level of organization” (Carey, Mitchell and Lowe, 2013, p. 250).

The dataset also tells us what type of link the government has to militias: an official, openly declared link, or an informal, sometimes even clandestine link. Carey, Mitchell and Lowe (2013) call the PGMs with the first type of link semi-official and the ones with the second type informal. Examples of semi-official PGMs are the National Guard (United States), the Revolutionary Guard (Iran), the Village Defense Committees (India), and the Rondas Campesinas (Peru). Examples of informal PGMs are the United Self-Defense Forces of Colombia, the Janjaweed Militia (Sudan), the Anti-Aceh Separatist Front (Indonesia), and the Interahamwe Militia (Rwanda).

The type of link is useful here inasmuch it allows us to proxy for control over the militia, as semi-official PGMs are much more articulated with the state than informal ones, and as

such the latter tend to be more autonomous than the former (Carey, Mitchell and Lowe, 2013; Böhmelt and Clayton, 2018). Indeed, a quick look throughout the cases in the PGMD shows that for most semi-official PGMs their only source of funding is the government<sup>1</sup>.

Based on this, we have two dependent variables: semi-official or informal PGM active (dummy variable) in a country in a given year. By using the two, it will be possible to analyze just how much are states willing to use militias and with what degree of control. Moreover, differentiating between semi-official and informal PGMs will allow for a comparison with studies that portray the use of militias as the delegation of atrocities, since they typically focus on the informal ones.

I will assume that the state has more control over semi-official PGMs than over informal ones. This is not far-fetched: the first are more incorporated into the state apparatus than the latter. Moreover, the latter may actually be working in a clandestine fashion, which could give them more leeway in how they provide security and thus exacerbate the liability problem. As such, I expect that liability concerns stemming from judiciary strength are more important for informal than semi-official PGMs, as the state can impose restraint on the latter if need be, but less likely so on the former. By comparing both regressions we can test for hypothesis 3.4.

The two other main variables of interest are the strength of the judiciary and civil war. To operationalize the first, I use Linzer and Staton's (2015) index of judicial independence. This index aims at capturing *de facto* judicial independence, which refers to the extent to which judges are, in practice, autonomous from external influence (including the government's) in their decision-making and how likely are their decisions to be implemented. This captures, in the end, just how powerful the judiciary is, which matches well with what we wish to test. The index is an interval measure from 0 (lowest independence) to 1 (highest independence), which was constructed by the authors using a latent variable estimation from eight existing indicators on the topic. As such, it allows for cross-sectional, time-series analysis to be done.

An issue could be raised that the level of judicial independence is endogenous to conflict inasmuch leaders could restrict liberties to deal with their opposition, or that perhaps there is conflict because of concessions made by leaders to increase the strength of democratic institutions. However, as Epperly and Sievert (2018) show, conflicts do not have a deterministic effect on institutions, but rather it could go either way. In other words, conflict is a critical juncture: whether judicial independence increases or decreases is context-sensitive. Given this, I take it as exogenous for our purposes. As figure 3.3, there is ample variation in judicial independence in countries with and without civil war.

As for civil war, I follow Carey, Colaresi and Mitchell (2015) and use the UCDP/PRIO

---

<sup>1</sup>Böhmelt and Clayton (2018) explore this to some extent.

Armed Conflict Dataset (ACD Gleditsch et al., 2002). The ACD defines an internal armed conflict as “a contested incompatibility that concerns government or territory or both where the use of armed forces between two parties results in at least 25 battle-related deaths [and it] occurs between the government of a state and internal opposition group” (Gleditsch et al., 2002, pp. 618-619). Based on the intensity of a conflict (the number of battle-related deaths), it is categorized as minor, intermediate or civil war. For our purposes, I take the presence of internal conflict with at least 25 battle-related deaths as the presence of civil war (our main conflict variable), and use a dummy variable to indicate the intensity of the civil war, that is, for civil wars have at least a thousand battle-related deaths per year (i.e., the highest category of intensity)<sup>2</sup>.

In addition, Carey, Colaresi and Mitchell (2015) use the other indicators of domestic unrest: strikes, riots, demonstrations and guerrilla attacks. These are dummy variables based on the Cross-National Time-Series (CNTS) dataset (Banks, 2008).

Given that the theory leads us to expect that security needs will only result in militia use if liability is low enough, and that civil war should moderate the effect of the strength of the judiciary, I interact the index of judicial independence with the civil war dummy. In this sense, I expect that judicial independence will matter less when civil war is present. Also, in accordance to hypothesis 3.4, the effect of judicial independence should matter less for semi-official PGMs than for informal ones.

Carey, Colaresi and Mitchell (2015) capture international accountability by creating a measure of aid dependence from democracies and another for trade aid dependence from autocracies. These are the natural logarithms of the total aid received from democracies and autocracies, respectively, divided by the recipient’s GDP. In addition, they use distance to nearest democracy to capture monitoring costs from the international community. I will use these measures as the international sources of liability in PGM use.

To control for each country’s particular characteristics, I again build from Carey, Colaresi and Mitchell (2015). They use the natural logarithms of GDP and population (taken, respectively, from the Penn World Tables and the Correlates of War project), and ethnic fractionalization from Fearon and Laitin (2003). Using GDP and ethnic fractionalization also have a clear connection to the theory. Based on the model, we would expect that the greater the GDP the more likely a state would use PGMs. In addition, recall the discussion about a PGM’s information advantage relative to the regular forces. The more ethnically diverse a society, the more likely that using militias would allow states to better navigate

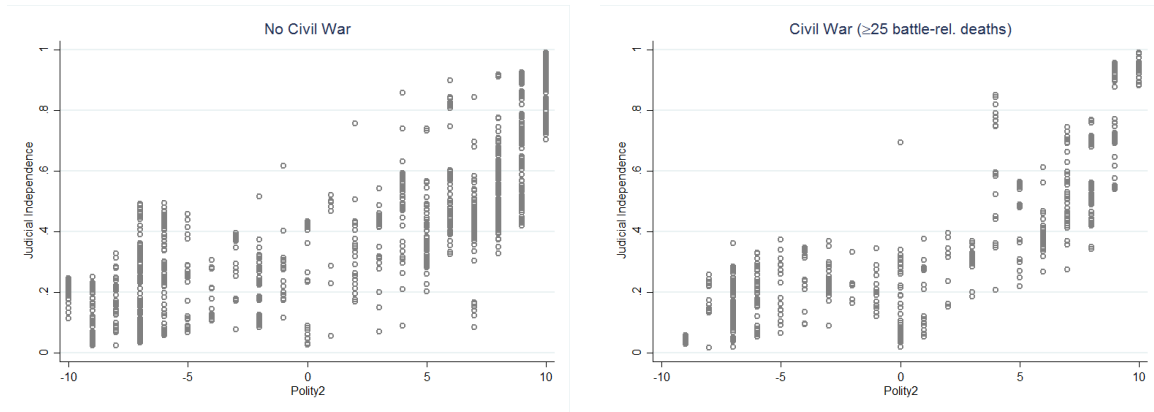
---

<sup>2</sup>Running the models with the intensity dummy as the main conflict variable (that is, interacting the judicial independence with the indicator of high-intensity civil wars rather than minor conflicts) does not significantly change the results.

the civilian population.

The Polity IV (Marshall, Jaggers and Gurr, 2010) score is used to characterize regime type. Since the authors show that PGMs are more likely to be present in anocracies (i.e., that the variable has a non-linear effect), I also use the squared term of the polity score. The polity score must be used carefully since one of its components is used in the construction of the Linzer and Staton (2015) index. However, these indicators have a low correlation, which should ease any multicollinearity concerns we may have, and there is variation in judicial independence across regime types, regardless of whether or not a country experiences civil war, as figure ?? shows. Finally, as a robustness check, I also use random effects to account for unit heterogeneity. Table 3.1 shows the descriptive statistics.

Figure 3.1: Judicial Ind. Across Regimes, With and Without Civil War



### 3.3 Results

Table 3.2 presents the regression results. As can be seen across the models, judicial independence negatively impacts the likelihood of having an active PGM, whether semi-official or informal. This is true regardless of whether we include the polity indexes or not. Moreover, since the polity score does not seem to be significant across models, it would seem to be evidence that what matters is not how democratic a state is across the board, but rather how much can the judiciary hold the executive accountable for the actions of regular and irregular troops.

In addition, civil war is significant across the models, except number 3. The interaction between judicial independence and civil war, however, is positive and significant in all but model 2. It would thus seem that the effect of judicial independence on using a PGM depends on the presence of civil war. This supports our hypotheses: not only is a threat to security

Table 3.1: Summary Statistics

Variable	Mean	Std. Dev.	Min	Max
DV: Semi-official PGM	0.2901	0.4539	0	1
DV: Informal PGM	0.2115	0.4084	0	1
Judicial Independence	0.4485	0.2947	0.0162	0.9909
Civil war	0.2974	0.4572	0	1
≥25 battle-rel. deaths				
CW intensity	0.1141	0.3181	0	1
≥1000 battle-rel. deaths				
Strikes	0.1350	0.3419	0	1
Riots	0.1870	0.3900	0	1
Demonstrations	0.3071	0.4614	0	1
Guerrilla attacks	0.2026	0.4020	0	1
Polity2	1.9845	6.9040	-10	10
Ln Democratic aid	-0.0278	4.5014	-8.5172	7.4953
Autocratic aid	-7.2485	3.1363	-8.5172	3.3822
Distance to democracy	885.3856	1014.846	0	4985.35
Ln GDP	8.3710	1.1649	5.0333	10.7297
Ln population	9.6750	1.3703	7.1951	14.0827
Ethnic fractionalization	0.4359	0.2875	0.0050	0.9250

Table 3.2: Determinants of PGM Activity

	(1) Semiofficial	(2) Informal	(3) Semiof. (RE)	(4) Inf. (RE)
Judicial independence	-2.412* (0.588)	-3.375* (0.656)	-7.691* (1.781)	-3.870* (1.126)
Jud. indep. x Civil war	2.397* (0.517)	0.859 (0.578)	8.141* (1.960)	1.690+ (0.877)
Civil war	0.785* (0.260)	0.847* (0.266)	-0.399 (0.567)	0.639+ (0.373)
(≥ 25 battle-rel. deaths)				
CW intensity	0.328 (0.215)	0.419* (0.200)	0.413 (0.340)	1.049* (0.282)
(≥ 1000 battle-rel. deaths)				
Strikes	-0.132 (0.205)	0.0280 (0.197)	0.208 (0.344)	0.0977 (0.257)
Riots	-0.200 (0.186)	0.436* (0.178)	-0.389 (0.309)	0.294 (0.224)
Demonstrations	-0.285+ (0.167)	0.191 (0.165)	0.349 (0.270)	0.231 (0.208)
Guerrilla Attacks	0.475* (0.171)	0.228 (0.168)	0.551+ (0.288)	-0.00687 (0.224)
Polity2	0.0403+ (0.0228)	0.145* (0.0229)	0.0182 (0.0466)	0.173* (0.0324)
Polity2 sq.	0.00788* (0.00348)	0.00262 (0.00369)	-0.00686 (0.00746)	0.000956 (0.00559)
Democratic aid	0.183* (0.0270)	0.0892* (0.0302)	-0.0232 (0.0735)	0.0802 (0.0555)
Autocratic aid	-0.0270 (0.0204)	-0.0407* (0.0205)	-0.0767* (0.0331)	-0.0738* (0.0269)
Distance to democracy	-0.000727* (0.000166)	-0.000695* (0.000172)	-0.000404 (0.000301)	-0.00135* (0.000266)
Distance x dem. aid	1.164* (0.187)	0.940* (0.185)	1.068* (0.399)	1.557* (0.290)
Ln GDP	1.045* (0.109)	0.0965 (0.107)	2.123* (0.474)	-0.361 (0.274)
Ln population	0.397* (0.0518)	0.187* (0.0527)	2.108* (0.531)	0.508* (0.188)
Ethnic fractionalization	0.184 (0.257)	-0.0501 (0.255)	1.275 (2.346)	-0.263 (0.920)
Constant	-20.53* (1.629)	-9.337* (1.486)	-46.96* (7.109)	-12.59* (3.048)
<i>N</i>	1866	1866	1866	1866

Standard errors in parentheses, +  $p < 0.10$ , \*  $p < 0.05$

required to use a PGM, the risk of using it must be minimized so as to avoid it becoming a liability.

However, as the coefficient of the interaction suggests, the presence of civil war seems to eliminate the impact of judicial independence on the likelihood of using semi-official PGMs. This is in accordance to hypothesis 3.4: civil war makes the use of PGMs more likely, and since semi-official PGMs are more controlled by the government, then they can be used with lower risk than informal ones to respond to the security situation when judicial independence is high.

The results regarding ethnic fractionalization indicate that it does not seem to matter how ethnically diverse the country is for a PGM to be used. This may be an artifact of the aggregation of the data, however, so further study here is necessary. As for budget considerations, there is mixed evidence: the effect of Ln GDP is positive and statistically significant in models 1 and 3, positive but not significant in model 2, and negative but not significant in model 4. It seems to be the case that, in line with Böhmelt and Clayton (2018), that wealthier states use semi-official PGMs more than informal ones. Further research is required, however, as GDP may be capturing a country's capabilities and military quality, which, according to our model, make it less likely for a PGM to be used<sup>3</sup>.

A different possibility, however, is that the costs of informal PGMs are paid in some other form, which is not reflected on a country's GDP. As the PGMD shows, many informal PGMs are financed by businessmen and landowners, or they finance themselves through extortion, looting and pillaging, and illegal trade (drugs in particular). As will be shown in the next chapter, these types of financing are basically allowing the PGM to tax the population directly, rather than the state increasing taxes and then paying the PGM, or foregoing taxation on illegal trade because it could become a liability. Moreover, these types of financing would mean that the PGMs themselves become more of a liability, since they could overtax, pillage without control, and boost the drug trade and its inherent health, social and security problems.

Finally, regarding Carey, Colaresi and Mitchell's (2015) original results, what hold is that the more democratic aid a state receives and the more distant the nearest democracy is from it the more likely the state will use a PGM. These results can also be explained using the economic theory of PGMs: first, the more resources you have (aid received), the more likely you use PGMs. Second, the more distant democracies are from a state, the less surveillance they can have over the latter, and thus the less riskier it is to use PGMs (less liability). However, autocratic aid, as in their original results, is negative and significant across the

---

<sup>3</sup>Recall the budget discussion in the theory chapter regarding the difficulty of translating resources from theory to empirics while holding all else equal.



board. This is puzzling: according to the theory herein it should have a positive effect (just like democratic aid). That being said, subsequent tests (see table 3.3 below) shows that autocratic aid is not significant for the first use of PGMs.

To explore the substantive effect of judicial independence, I use Stata's margins command based on models 1 and 2 and plot the results. All variables except for our index of interest and civil war are set to the mean, and the dummy variables and polity score are set to zero (the center of the scale). I chose to focus on the anocracies for the simulation (i.e., states that are in the middle of the polity2 scale) because they have been identified in the literature as the more likely to use informal militias (Carey, Colaresi and Mitchell, 2015), and thus constitute a good case to explore whether or not it is the strength of democracy across the board or the strength of the judiciary.

Two types of simulations are then run for each of the two dependent variables. The first type analyzes the case where the state is not experiencing a civil war and the second analyzes the case where there is a civil war present with at least 25, but less than 1000, battle-related deaths<sup>4</sup> Figure 3.2 shows the results.

As can be seen, PGMs of any type are much more likely to be present when there is low judicial independence and the state is experiencing civil war. The effect of civil war, moreover, is highest at the smaller values of judicial independence for informal PGMs. Indeed, at the extremes values of judicial independence the presence of civil war does not seem to have too big of an impact on the probability of informal PGM activity. Rather, the effect is largest between the lower end and the middle.

Interestingly, the probability of having an informal PGM falls faster than the probability of having a semi-official PGM the more judicial independence grows. Moreover, the presence of civil war virtually eliminates the effect of judicial independence on semi-official militias, which provides support for hypothesis 3.4. This further shows that states are not willing to run the risk of having very autonomous armed groups outside their regular forces the more they can be held accountable for their behavior. On the other hand, states usually have more control over semi-official PGMs, which minimizes the risk of agency loss and as such are likely to be seen in states that are experiencing civil war, regardless of how strong their judiciary is.

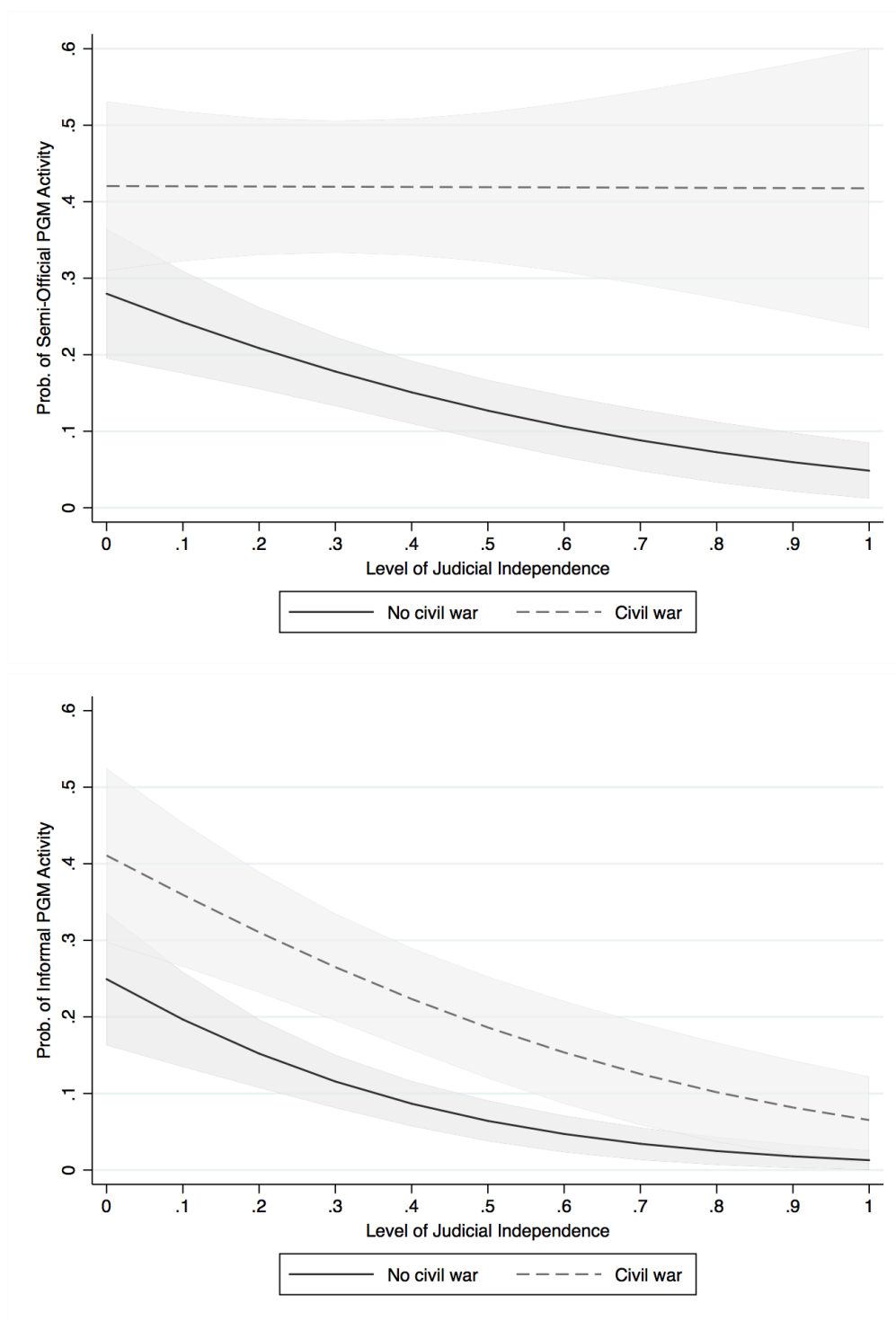
### 3.3.1 Judicial Independence Across Regimes

To further explore the effect of judicial independence, I also run the simulations while varying the polity2 score. This way, we can get a hold of the effect of increasing accountability on

---

<sup>4</sup>Simulating for only civil wars above the 1000 battle-related deaths threshold does not change the results)

Figure 3.2: Substantive Effects of Judicial Independence



the executive throughout regimes (recall that the simulations for figure 3.2 uses a polity2 score of zero). Figure 3.3 shows the results.

As can be seen, the judiciary seems to have no effect over the probability of having semi-official PGMs active in civil war (although it seems to be more likely that weak and strong democracies use them than autocracies). On the other hand, the greater the polity2 score, the more likely a state will use an informal PGM, especially when judicial independence is low. It would thus seem to be the case that what matters is whether the executive can be held accountable, not which type of regime it is.

That being said, it is interesting to note that autocracies, both weak and strong, are less likely to use informal militias (though civil war does seem to bring them out, regardless). It would seem to be that the calculus of an autocrat is different: either they have no need for one, or arming a group outside of the regular forces over which they have little control is deemed as far too risky. This resonates with De Bruin’s (2018) study, in which she shows that using militias as a coup-proofing strategy might actually trigger coups, as the military are either deprived of extra resources (which go into militias) or they anticipate the militias’ strengthening and launch the coup before it is too late.

A critique might be made that the effect of judicial independence is non-linear. Using the index and its squared term do not significantly change the results: the maximum is at the lower ends of the index, and the 95% confidence intervals so wide that the actual effect could just be a small plateau at the beginning of the index or simply indistinguishable from the linear specification.

### 3.3.2 Militias as ‘Failure Events’

The results shown above present evidence for our expectations regarding security needs and liability minimization. However, temporal dynamics have not yet been taken into account. Indeed, it may be the case that there are PGMs already in play before a civil war begins. To explore this, I use event-history modeling.

I recode the dependent variables as multiple failure events: they are zero when there is no PGM active and one only the first time they are active after an absence spell. The duration of their activity is treated as censored (that is, these countries leave the data pool). In addition, I use time polynomials to control for time dependencies. These polynomials start on the first year of observation and end on failure event. If a country re-enters the data pool (PGMs go from active to absent), then the time variables restart. Results are shown in table 3.3.

Although judicial independence is negative in all models, it is only statistically significant

Figure 3.3: Judicial Independence Across Regimes

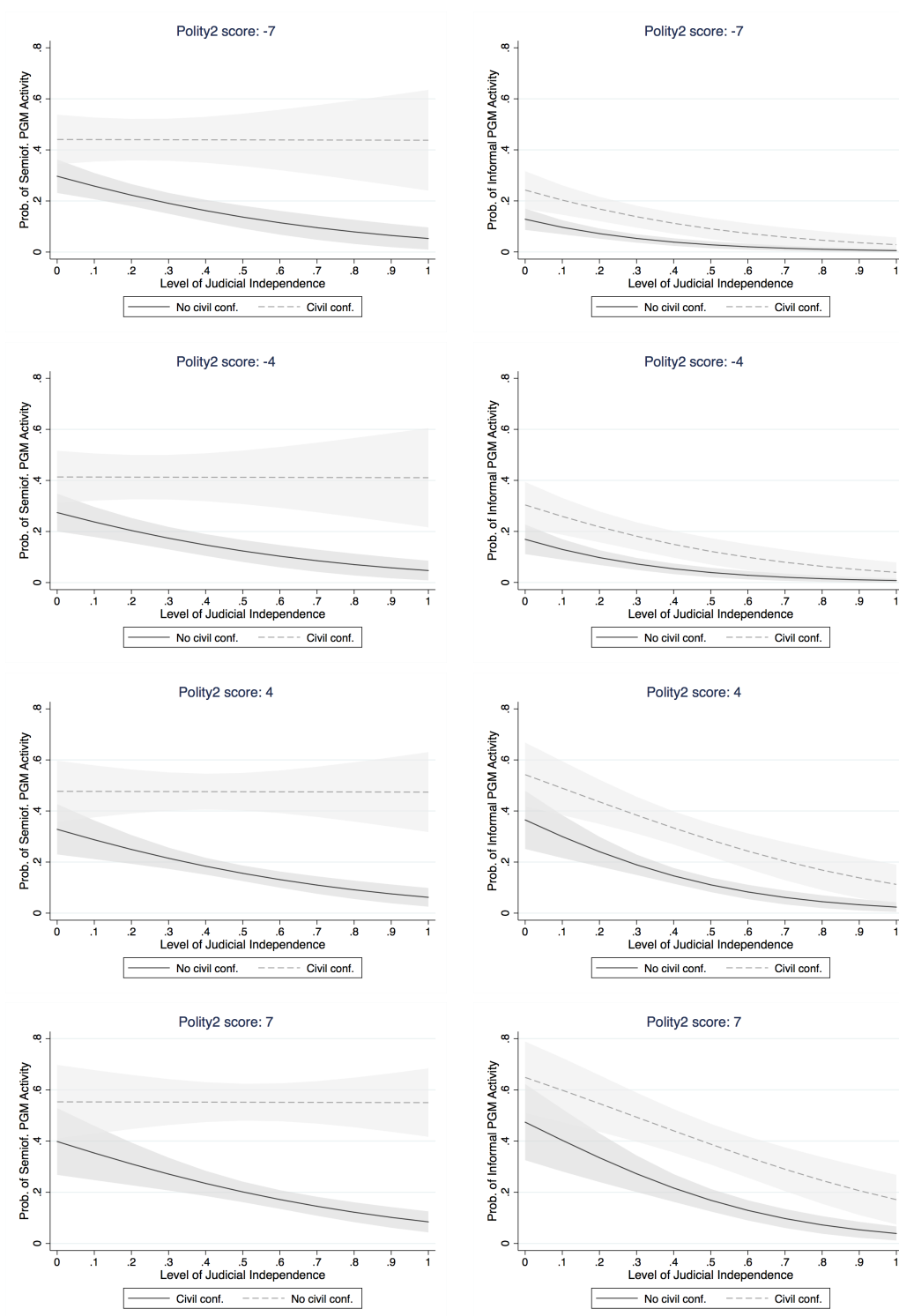


Table 3.3: Determinants of First PGM Use

	(1) Semiofficial	(2) Informal	(3) Semiof. (RE)	(4) Inf. (RE)
Judicial independence	-0.494 (1.319)	-2.708 <sup>+</sup> (1.401)	-1.444 (2.023)	-2.994 <sup>+</sup> (1.574)
Jud. indep. x Civil war	1.734 (1.083)	1.244 (1.242)	2.740 (1.682)	1.809 (1.421)
Civil war (≥ 25 battle-rel. deaths)	0.951 <sup>+</sup> (0.561)	0.816 (0.500)	1.216 <sup>+</sup> (0.716)	0.710 (0.552)
CW intensity (≥ 1000 battle-rel. deaths)	0.0541 (0.426)	0.456 (0.392)	-0.314 (0.509)	0.637 (0.432)
Strikes	-0.163 (0.465)	-0.265 (0.386)	-0.159 (0.545)	-0.174 (0.410)
Riots	-0.442 (0.427)	0.840* (0.324)	-0.502 (0.488)	0.748* (0.346)
Demonstrations	0.106 (0.358)	0.356 (0.330)	0.328 (0.403)	0.348 (0.349)
Guerrilla Attacks	0.0864 (0.356)	-0.385 (0.346)	0.265 (0.409)	-0.426 (0.370)
Polity2	0.0141 (0.0492)	0.0721 (0.0477)	-0.0260 (0.0684)	0.0837 (0.0517)
Polity2 sq.	0.00644 (0.00747)	0.00596 (0.00739)	-0.00147 (0.0104)	0.00595 (0.00804)
Ln GDP	0.483* (0.229)	-0.132 (0.207)	0.592 (0.367)	-0.264 (0.268)
Ln population	0.265* (0.128)	0.0869 (0.0950)	0.474* (0.214)	0.145 (0.133)
Ethnic Fractionalization	-0.339 (0.593)	0.348 (0.480)	-0.661 (1.013)	0.304 (0.635)
Autocratic aid	-0.0370 (0.0407)	-0.0483 (0.0371)	-0.0573 (0.0463)	-0.0510 (0.0388)
Democratic aid	0.143* (0.0604)	0.147* (0.0719)	0.111 (0.0830)	0.149 <sup>+</sup> (0.0791)
Distance to democracy	-0.000179 (0.000291)	-0.000483 (0.000323)	0.000304 (0.000430)	-0.000602 (0.000373)
Distance x dem. aid	0.610 (0.380)	0.745 <sup>+</sup> (0.396)	0.169 (0.540)	0.868* (0.442)

Standard errors in parentheses, <sup>+</sup>  $p < 0.10$ , \*  $p < 0.05$

Table 3.3 (continued): Determinants of First PGM Use

	(1)	(2)	(3)	(4)
	Semiofficial	Informal	Semiof. (RE)	Inf. (RE)
Time to PGM	0.452*	0.0827	0.823*	0.179
	(0.211)	(0.168)	(0.265)	(0.187)
Time to PGM sq.	-0.0651*	-0.0103	-0.0907*	-0.0163
	(0.0255)	(0.0173)	(0.0290)	(0.0186)
Time to PGM cubed	0.00176*	0.000369	0.00229*	0.000522
	(0.000773)	(0.000483)	(0.000850)	(0.000514)
Constant	-14.09*	-8.105*	-15.86*	-8.794*
	(3.355)	(3.102)	(4.957)	(3.539)
<i>N</i>	1374	1551	1374	1551

Standard errors in parentheses, <sup>+</sup>  $p < 0.10$ , \*  $p < 0.05$

in models 2 and 4 (first informal PGM use). This points to domestic accountability being the main obstacle for the use of informal PGMs. In terms of our model, it would be the main driver of the liability parameter.

The presence of civil war, on the other hand, has a positive and statistically significant effect on the first use of semi-official PGMs, regardless of judicial independence. According to these results, states are willing to tap into the military advantages that militia provide as long as they are able to control them (i.e., minimize the risk of their use). Combined with the results on informal PGMs, the issue of control over them for risk minimization, and therefore their viability, hinges on domestic accountability.

### 3.4 Concluding Remarks

This chapter presented a cross-national test of the economic theory of Pro-Government Militias. Using data on PGMs around the world between 1981 and 2007, as well as civil war and judicial independence data, it has shown that countries with low levels of judicial independence that are experiencing civil war are the most likely to have militias active within their borders.

It has also shown that the effect of security needs on the state's decision to use militias hinges on how much it can be held accountable domestically. Indeed, the positive effect of civil war on the likelihood of militia use is highest at the lower levels of judicial strength. This goes against the conventional wisdom, that militias do the dirty work that the regular forces cannot, because from that logic we would actually expect there to be more incentives to delegate atrocities the stronger the judiciary.

Moreover, the effect of judicial independence determines which type of militia is used: the

survival analysis has shown that informal PGMs are less likely when judicial independence is high, regardless of the presence of civil war. However, this effect is virtually eliminated for semi-official PGMs when civil war is present. It thus seems that states do take advantages of militias, but they only use the more autonomous ones (i.e., informal PGMs) when domestic accountability is low so as to minimize risk.

Finally, it has also shown that judicial independence only hinders the first appearance of informal PGMs, whereas semi-official PGMs seem to be unaffected. It would thus seem to be the case that states are only willing to use armed groups outside their regular forces if they can have enough control over them given increasing levels of domestic accountability.

Overall, the evidence presented in this chapter supports the theory. In particular, it supports one of main implications of the theory: that the use of militias hinges not only on security needs but also on minimizing risk (i.e. balancing the good and the bad). What this also means is that the critique of the ‘plausible deniability’ argument is warranted. I have argued that both theories have opposite expectations regarding the level of domestic accountability, and the results favor the economic theory of PGMs.

That being said, the results by Carey, Colaresi and Mitchell (2015) seem to hold: the more democratic aid a country receives and the further away it is from democracies the more likely it is to use militias. From my theory, this could be explained by the fact that the greater the budget the more likely a state will use PGMs, and that liability is lower when the international community cannot make proper surveillance. However, the fact that autocratic aid has a negative effect is puzzling, since it should, according to the model herein, have a positive effect (budget changes). Further study on both international accountability and the impact of changes in resources is needed.

Along the same lines, further study is necessary for investigating the model’s full implications. Expanding the PGMD and incorporating variables that better isolate and capture budgetary constraints, as well as salience changes and more disaggregated security data, would be an ideal way forward. Indeed, in this chapter the theory has been used to assess under what circumstances would a state use a PGM, but the theory also allows for understanding how the forces are combined. Indeed, one may be able to see how the use of the PGM varies in intensity after the state decides to employ them, both temporally and across its regions.

The evidence shown herein implies that if the international community wishes to positively impact a state’s human rights record, then it is not enough for it to be international monitoring, but rather the bolstering of domestic accountability measures. In particular, ensuring that the judiciary branch has the strength to constrain the executive and hold it accountable seems to be what makes states reticent of using informal PGMs. In this sense,

since dependence on aid from democracies is correlated with informal PGMs being active (Carey, Colaresi and Mitchell, 2015), then further aid conditionality having to do with good governance and constraints on the executive (especially from the judiciary) would pave the way for the state to build up its security forces in such a way that it minimizes human rights violations.

Indeed, as Stanton (2015) shows, it is not necessarily true that all militias victimize civilians, so the policy implication is not about how to make states not use militias, but rather which ones not to use, and how to ensure that they toe the line. If the state is held to high human rights standards, then it will be more likely to use militias that it can control so that they show restraint. After all, states find in militias an interesting addition to their security apparatus since their low costs, autonomy and informational advantages allow for an easy bolstering of security.



# Chapter 4

## Combining Forces: Force Substitutability in Civil War

### Introduction

Once a state decides to use irregular forces, how does it combine them with its regular forces? In particular, what does force deployment look like on the ground? Most of the literature has focused on analyzing which type of states use PGMs and under what general circumstances. Few works have actually explored militia deployment and activity subnationally. From a few exceptions, we know that militias appear in areas in which the state and the rebels are at a military stalemate (Jentzsch, 2014), that they operate near military bases (Mazzei, 2009), and that the state is more likely to use militias in conflict regions where there are also military purges in progress (Eck, 2015).

However, the trade-off inherent to the substitution of forces has of yet not been addressed in the literature. As we know from the foreign policy substitutability literature, ignoring substitution among policies can lead to confounding, as “*similar* factors could lead to *distinct* concrete or empirical (...) policy responses” (Most and Starr, 1984, p. 387).

Indeed, although the literature has analyzed some of the characteristics of states that would be more likely to use militias, we do not understand how states change their engagements given militia activity. From anecdotal evidence, most arguments regarding militia deployment seem not to take into account force substitution. Most works simply assume that militias are prompted in addition to the armed forces and, in particular, do their ‘dirty work’. What the economic theory of PGMs tells us is that to start using (or increase the use of) one force, the state must spend less on the other, even if their roles are clearly differentiated.

Based on the model, the distribution of resources between regular and irregular forces is in proportion to the net utility gain that each produces. The combination of forces is thus based on this. As the proportion changes, holding the budget constant, so too must the allocation of resources. In other words, what we should expect is a substitution effect: the higher the resource amount allocated to one force the lower the amount allocated to the other. This can be understood both at the national (aggregate) and subnational levels: we can think of the budget as being divided into smaller budgets, one for each region of the country, and then distributed between regular and irregular forces depending on the security/liability calculus of each scenario.

To test this expectation, I use data from the most recent Colombian civil war to study the patterns of activity of the Colombian Armed Forces given the activity of the United Self-Defense Forces of Colombia (*Autodefensas Unidas de Colombia*, hereinafter AUC), an illegal armed group that harassed and killed thousands of civilians and colluded with army officials and politicians at the local, regional and national level during their active period.

This chapter is organized as follows. The first section explores force substitutability based on the model and presents the empirical implication to be tested. The second section presents an overview of the Colombian experience with militias. The third section presents the research design. The fourth section presents and discusses the results of the empirical analysis. Finally, the fifth section presents the concluding remarks and discusses potential future research.

## 4.1 Force Substitutability

We know from the literature and the PGMD that not all states use militias, and those that do use them do not do so all the time. Thus, whatever triggers the appearance of a militia in a country may not do so in another. In civil wars, for example, not all states use militias to battle insurgents, and among those that do there is variation in the timing and the type they use. As Most and Starr (1984, p. 387) argue, since a given stimulus may make some leaders adopt policy x while other would adopt policy y, “an understanding of *which particular [policy]* would be adopted by different decision makers under different conditions would involve a consideration of how they make comparisons across, and eventually choose from, the range of those available options”.

It is thus important to understand policy decisions in the light of what is the particular objective sought and why states allocate resources as they do across possible policies to be implemented, given the constraints each state faces. Indeed, as Palmer and Morgan (2006) show, in pursuing objectives and using different policies, given budgetary constraints, states

face trade-offs between the pursuit of said objectives, and choosing among policies reflects this.

Based on our model, if the state decides to use a PGM, then it is accepting two trade-offs: the first is between gaining some security in exchange for some risk (liability) inherent to the use of militias, and the second is between spending all resources on the regular forces or dividing them between the regular and irregular forces. What is the optimal combination of forces for the government? Recall from chapter 2 that the amounts spent into each of the forces is given by equations 2.16 and 2.17:

$$I_r = \frac{(b+1)(A\alpha_1 - B\alpha_2) - (A\beta_1 - B\beta_2)}{(A\alpha_1 - B\alpha_2) + (A\beta_1 - B\beta_2)}$$

$$I_i = \frac{(b+1)(A\beta_1 - B\beta_2) - (A\alpha_1 - B\alpha_2)}{(A\alpha_1 - B\alpha_2) + (A\beta_1 - B\beta_2)}$$

Which allow us to analyze how changes in any and all parameters would influence how resources are (re)distributed among forces. What they also imply is that when the budget is completely spent, allocating more resources to one force necessarily means taking some from the amount allocated to the other. In other words, if the budget remains the same, then changes in the parameters means spending more on one force and less on the other.

This can be better seen through equation 2.15:

$$\frac{I_i + 1}{I_r + 1} = \frac{A\beta_1 - B\beta_2}{A\alpha_1 - B\alpha_2}$$

The right-hand side of the equation compares the net efficiency with which each force contributes to the utility, and the ratio between how much is spent on each force reflects this comparison. Thus, as the right-hand side increases the irregular forces become relatively more efficient at providing utility to the state and so more resources should be spent on them. Assuming that the whole budget has been previously allocated and remains unchanged, an increase in the net efficiency of the irregular forces means a spending less on the regular ones, and vice-versa.

To better understand how the state combines its forces, we can apply the model's logic to sub-national units. For each region, the state will devote a given amount of resources to face rebels. The amount of security that each force produces depends on the characteristics and conflict dynamics of each region. Recall, for example, that PGMs have an informational advantage relative to the regular forces, which may make them a better asset in regions where the rebels are suspected to be hiding among the populace or receive support from them. On the other hand, the regular forces may be better equipped for frontal assaults

against the rebels.

However, how much liability each force produces also depends on where they are deployed. For example, if the state does not have much control over militias, then it may be very dangerous to use them in places where the state would rather minimize collateral damage and civilian victimization. Likewise, if there is a risk of a coup, then the deployment of forces near the seat of power should favor militias in order to coup-proof.

In addition, the salience of security and liability will differ throughout the national territory. For example, we should expect security to be more salient relative to liability as the value of a region increases because losing said region to the rebels could deprive the state from profits and strategic positions for continuing the fight. On the other hand, a region in which media access and reporting is higher may imply that the state would care more about liability since its constituents could be paying more attention to human rights violations in it. In sum, we can use the model to not only identify how the state distributes its resources between regular and irregular forces at the aggregate level, but also how resources are allocated to each force in specific sub-national settings.

That being said, exploring this empirically may be particularly difficult because many of the variables that we could use in our operationalization may actually capture multiple concepts at the same time. For example, we could use the regional GDP as a proxy for the budget constraint, but the size of the regional GDP may also represent how important a region is for the government, as protecting or re-taking a very productive or rich region would be prioritized relative to economically smaller regions.

Along the same lines, the liability that a PGM may produce in a given region would be smaller the further away from the capital it is. This is for two reasons: on the one hand, the more distant it is from the seat of power, the more likely that the region is less important and thus any issues caused by the PGM are minimized. On the other, it is likely that the media and NGOs would be more likely to blow the whistle on human rights violations, and thus try to hold the state accountable for the militia's activity, the closer a region is to the capital.

What we can actually do to test the theory in a simple way is to directly compare the state's resource allocation among its available forces. In other words, rather than analyzing the determinants of PGM presence by region, we can analyze the impact the allocation of resources to PGMs has on the allocation of resources to regular forces, given that the state has already made the security-liability calculus of whether or not to use the PGM.

However, assessing budgetary issues directly may not be particularly feasible, since it may be information that is difficult (if not impossible) to get. Indeed, throughout the world many of the resources devoted to militias are given in a clandestine fashion, and are thus

difficult to track. Rather, for the purposes of this test it may be more useful to think about  $I_r$  and  $I_i$  as how much each force is used in each specific scenario, since the more resources go into one force the more activities that force should perform, all else equal.

Thus, we can test the model by analyzing the substitutability of forces in terms of how active each force is. Given the limited resources, and assuming that these are translated into force activity, we should expect that the more active a force is in a territory the less active the other one should be.

Our hypothesis is thus:

*Hypothesis 4.1: The level of activity of regular forces in a given region is negatively related to the militia activity in it.*

## 4.2 Case Study: The United Self-Defense Forces of Colombia

To test this hypothesis I will use the case of the United Self-Defense Forces of Colombia or AUC (Autodefensas Unidas de Colombia), a PGM active during Colombia's most recent civil war. Although the Colombian case may seemingly be considered as quite unique, a deeper look shows that, controlling for peculiar characteristics, we can learn much from it and generalize whatever conclusions we may reach. Indeed, although Colombia has experienced one of the longest civil wars, supported an informal PGM that seems to be quite powerful and with a large membership compared to most others despite the state having a relatively strong army and relatively stable democratic institutions (for a country experiencing civil violence), many of the subnational dynamics of PGM activity resembles the experience of others.

First, the activity of the AUC was closely tied to, and complemented, the military's. As in other Latin American countries, for example, the PGM's operations were carried out in close proximity to that of the regular forces of the state, which made cooperation between the army and the PGM more fluid and allowed the latter to do the dirty work for the former (Mazzei, 2009). Indeed, although it was a very autonomous militia, it always depended on the state, especially because, contrary to the rebel groups, it did not have an autonomous mobilization base (Zelik, 2015). Moreover, Jacobo Grajales (2017) argues that the paramilitary groups in Colombia were molded by the state's intervention.

Second, although Colombia has had somewhat of a stable democracy despite its internal conflict, the democratic situation and the institutional strength outside the main cities of the

country resembles other cases in which there is a clear lack of governmental reach. As Fernán González (2014) explains, the formation of the Colombian state has been an ongoing process in which the state has slowly expanded (and continues to do so) its reach from the center outward, and the quality of institutions within a region depends on how articulated said region is with the center (socially, economically, etc.), and especially the type of relationship established between the central and local authorities (conflict, negotiation, co-optation)<sup>1</sup>.

In this sense, democracy in Colombia's periphery has been lacking, as local strongmen are able to control political action as if it were a mild (or even strong) autocratic setting. It is no wonder that when Colombians were allowed to directly elect their mayors and governors the electoral contest was marred with bloodshed and clientelism (Romero, 2003).

Such unequal development in Colombia led to not only great economic disparity but also to different levels of institutional strength and effectiveness across regional and municipal units. Ana Arjona (2016) argues that this is a key factor in explaining variation in armed group governance during the Colombian civil war: the degree of control the rebels (or even the AUC) were able to establish greatly depended on the community's ability to peacefully resist, which in turn was given by the quality of institutions, state-given or otherwise, already present.

Along the same lines, the infiltration of state institutions by armed actors, the militias in particular, prevented the success of democratic institutions (see the 'parapolitics scandal' below), and their control over criminal activity became such that during their demobilization talks the militia commanders promised to 'give back' Medellín<sup>2</sup> to the authorities if the former failed to pacify it (Ronderos, 2014).

Finally, just as with many other PGMs around the world, the AUC's main objective was keeping the population in check, weed out insurgent collaborators and deny further rebel incursions rather than being the tip of the spear against Colombia's rebels (Romero, 2003; Rangel, 2005). The following subsection briefly overviews the Colombian case.

### 4.2.1 On Colombia's Paramilitary Experience

The AUC were a federation of illegal paramilitary groups that united under the leadership of Carlos Castaño. They were active between 1997 and 2006, when they demobilized following negotiations with the government. They were an informal PGM whose connection to the government was clandestine. Indeed, many politicians and army officers were tried and

---

<sup>1</sup>Indeed, most of Colombia's civil wars have been about federalism vs. centralism.

<sup>2</sup>Medellín is the second largest city in Colombia, both in terms of population and GDP.

sentenced because of their collusion with the paramilitary<sup>3</sup>. At their peak, they were 80% of the size of FARC and three times the size of ELN, Colombia's two largest insurgent groups (Rangel, 2005). How did this federation of militias come to be?

## The Road to the AUC

The AUC were not a unique phenomenon in Colombian history: in the period known as *La Violencia*, in the mid-20th century, the so-called 'pájaros' (the birds), militias with ties to the conservative party and local elites, emerged and terrorized the country-side, rooting out suspected members and collaborators of the liberal insurgents. Later, during a state of emergency, president Guillermo León Valencia authorized civilians to perform national defense functions with the executive decree 2298 of 1965. This decree would later become a law (Ley 48 of 1968), which allowed the army to provide civilians with arms and coordinate assaults with them (Ronderos, 2014).

As will be shown, militias in Colombia have been a mostly rural phenomenon. This should not be surprising: most rebellions in Colombia have also had an important rural component. In a sense, most could be cast in terms of central Colombia vs. its periphery. Not only that, regional elites, which held so much power that many regions had lacking democratic institutions, were quick to put down any threat. The demand for security, along with the regular forces usually being concentrated around the capital and the largest cities, made rural Colombia a fertile place for militias, especially when rebels exploited their informational advantage in the periphery.

However, paramilitaries in Colombia had a history of going back and forth between legality and illegality. Regardless, the constant in this back and forth is collusion with authorities, especially the army. Although the link to the state was always present (and suspected, if not visible), it wasn't until the late 1990s and early 2000s that army officers and politicians were punished for colluding with paramilitaries. In fact, as will be shown below, the Colombian government was not punished for using militias by the international community (not even by the US, which was very aware of the collusion); aid kept flowing. In other words, the risk of using militias, especially in terms of accountability, was relatively minor throughout the 20th century.

In Colombia's most recent civil war, they appeared after the guerrilla movements started to encroach into wealthier areas in the late 70s and early 80s (Duncan, 2015). They sprung up as part of grass-roots movements, encouraged by regional elites and the support of the

---

<sup>3</sup>This was the so-called "parapolitics scandal" that started when investigative journalists and academicians uncovered these links and then demobilized senior members of the AUC started to give incriminating testimonials (Valencia, 2007).

army, since in these times it was still legal for the army to provide weapons to civilians (Duncan, 2014). In the beginning they were tasked with defensive and intelligence roles, as their local knowledge provided them an advantage over the armed forces. As such, they were a cheap way to aid the army. Later, however, with drug trafficking organizations becoming entangled with the self-defense groups, they became more autonomous and began a dirty war against the insurgents by victimizing individuals and communities suspected of being members of or collaborating with FARC and ELN (Grajales, 2017).

Despite the existence of a legal framework, some of these organizations were clandestine from the beginning: the first illegal self-defense groups in record date to 1986, but it is clear that they had the help of army officials to be prompted (Romero, 2003). During the Turbay administration (1978-1982), for example, repression against civilians was intensified, and a large part of this was done by an illegal group: the so-called Triple A (Anticommunist American Action) was a short-lived militia that hunted down communists. Although it was known that the Colombian Armed Forces were behind their creation, no officer was prosecuted (Zelik, 2015). Militias, thus, presented little or no chance of becoming a liability, as collusion with them had no consequences for politicians nor army officers.

As Romero (2003) explains, a combination of three factors enabled the formation of the paramilitary organizations as we know them today in Colombia. First, the peace process that the president Belisario Betancur started with guerrillas in the 1980s brought with it a political reform that regional elites promptly rejected, which made the first popular elections of mayors in Colombia a bloody contest. Second, the armed forces also rejected the peace process and favored counterinsurgency tactics as the means to eliminate the rebel threat. Finally, drug traffickers started to prompt their own armed groups in order to compete with FARC for the control of the narcotics business, and they mixed with the counterinsurgency effort. Yet, despite the friction between regional and local elites and the army, on one side, and the government on the other, the latter barely took any action against militias nor the officers that helped to sire them.

The origin of paramilitarism empowered by drug money can be traced to the *Muerte a Secuestradores* (Death to Kidnappers) group, or MAS (Echandía, 2013). This group was prompted by Colombia's drug cartels after a guerrilla group kidnapped a member of the Ochoa family, which was part of the Medellín cartel. However, the MAS exceeded its initial purposes, and became a tool for the cartels' territorial expansion. Indeed, Echandía (2013) argues that since then the expansion of paramilitary organizations in Colombia obeys drug-trafficking interests. In this regard, the author continues, counterinsurgency was taken as their rallying flag because it coincided with the competition in the drug business. After all, rebels in Colombia, especially FARC, started to use drug trafficking to finance themselves and



thus became competitors of the paramilitaries. Despite everything, Colombian authorities (and especially the army) continued to collude with militias. As Rangel (2005) put it, the state had to choose between the security problem created by the use of militias and the one produced by the rebel groups' activity. Despite the risks, then, the state chose to use the militias rather than go against them.

Although the expansion of paramilitary groups seems to be guided by the acquisition of the coca fields and cocaine routes, the military seems to have always supported the militias. Indeed, as Ronderos (2014) points out, whether by ideological conviction or because they were infiltrated by drug trafficking, the military pushed for the expansion of the self-defense forces, and the executive did not prevent it, even when it might have been opposed. This author presents us with a clear example of the military's push for militias: in 1983, just as the army's fourteenth brigade was being set up, in a farm called La Paz near the municipality of El Tecal the 'school for the paramilitaries' was created. This is reminiscent of Mazzei's (2009) argument, that paramilitary organizations in Latin America always operated in close proximity to the regular forces despite their clandestine nature.

Indeed, throughout the 1980s the Colombian militias received constant training. Most (in)famously, in 1988 they were trained by foreign mercenaries from the United Kingdom and Israel (Grajales, 2017). Two mercenaries were of particular importance: Yair Klein<sup>4</sup> and David Tomkins, both of whom claimed to have been invited by Colombian authorities and actually carried out the trainings without their own governments' authorization. From them, the paramilitaries learned counterinsurgency tactics that, closely related to the national security doctrine and US counterinsurgent efforts in Central America, were aimed at 'draining the sea' (Garzón, 2005; Rangel, 2005; Zelik, 2015). In fact, in between the trainings by the Israelis, the massacre of Punta Coquitos took place (Ronderos, 2014).

The fact that some militias were constituted outside the existing legal framework was symptomatic of both drug-trafficker's mobilization of militias and of contradictions within the government: in 1987, a great debate began within the executive, as the ministers of Justice and Defense were pro self-defense forces, but peace advisors were opposed (Garzón, 2005). This contradiction would eventually lead to change the government's stance towards militias, as president Virgilio Barco would enact a decree (Decreto 815 of 1989) that would modify the regulation of militias: civilians were no longer allowed to participate in offensive action against rebel groups, it forbade civilians to carry military-grade weaponry and also forbade the army to provide civilians such weaponry (Ronderos, 2014).

However, this would not bar the security forces (nor the DEA, for that matter) from

---

<sup>4</sup>Upon apprehension in Russia in 2007 (Interpol had issued a warrant), he claimed that he was invited by high-ranking officers to train the paramilitaries.

collaborating with a militia called *Los Pepes* (short for Persecuted by Pablo Escobar), an agglomeration of paramilitaries and drug-traffickers that hunted down the head of the Medellín cartel. *Los Pepes*, Colombian and US authorities shared intelligence and coordinated their manhunt efforts (Duncan, 2015). It would thus seem to be that, for Colombian and US authorities, collusion with *Los Pepes* was acceptable because the main security threat was Pablo Escobar. It takes a drug trafficker to catch another, never mind the risks.

Despite the fact that president Gaviria (1990-1994) opposed collaborating with *Los Pepes*, he and his successor (Ernesto Samper, 1994-1998) enacted decrees (535 of 1993 and 356 of 1994) that allowed the establishment of private security cooperatives, later dubbed *Convivir*, which received funding and arms from the government in order to supplement the army's activity. Colombia's leaders, then, saw in militias. Many of the *Convivir*, however, were led by leaders of already existing militias, that is, eminent drug-traffickers (Ronderos, 2014).

This again shows just how risk-accepting the Colombian authorities were, as the expected benefit of the *Convivir* trumped any concern regarding its member base overlapping that of illegal militias, which in the end were drug-trafficking organizations. Now with the *Convivir* the paramilitaries in Colombia had access to official resources and armament in addition to what the trade of narcotics would give them. Then again, the risk for politicians and army officers was minimal, as the state had yet to punish collusion with militias.

With the growth of paramilitarism, both legal and illegal, a clear role specialization began between the regular forces and the militias: of all human rights violations committed in 1993, 55% were attributed to Colombia's regular forces, whereas 18% were attributed to the militias. By 1996 this was flipped: 60% of human rights violations were attributed to the militias and only 10% to the armed forces (Zelik, 2015). Since the army continued to violate human rights, it would seem to be the case that what was going on was not a delegation of atrocities, but rather a division of labor based on the effectiveness with which each force would carry out different security tasks.

Yet another division within the government emerged in November of 1997, when the Constitutional Court of Colombia modified the decree 356 of 1994 in order to make it compliant with the new constitution. As a result, the *Convivir* were no longer allowed to use arms, and so many of its members simply joined the ranks of the illegal militias already in operation (Valencia, 2007).

## **The Rise and Fall of the AUC**

The fact that in 1996 the army suffered their most devastating defeats against FARC paved the way to the creation of the United Self-Defense Forces of Colombia, the AUC Rangel (2005), and the virtual dismantlement of the *Convivir*'s ability to battle the insurgents

provided both a bolstering of the AUC via the remobilization of the *Convivir* members into the AUC and support of their state-abandonment discourse (see below). As was said above, the AUC was a federation of militias led by the Castaño brothers. These brothers were established drug traffickers who were instrumental in the creation of *Los Pepes* and the demise of Pablo Escobar (Duncan, 2015).

After the fall of the Medellín cartel, the Castaño brothers created the Peasant Self-Defense Forces of Córdoba and Urabá (*Autodefensas Campesinas de Córdoba y Urabá*) or ACCU. Not only was the ACCU project supported by local and regional businessmen, as well as the Colombian Armed Forces, it was also vastly funded by narcotics (Ronderos, 2014). If before many militias were subordinated to the cartels, with the vacuum of power left by the demise of the cartels it was now the militias who took control of the drug business (Echandía, 2013).

Just as with *Los Pepes*, Colombia's armed forces had seemingly no issue with coordinating security production with drug traffickers<sup>5</sup>. Indeed, since the government's (and especially the armed forces') main concern was to eliminate the insurgency, then it made sense for them to collude with militias, regardless of what the Colombian courts thought.

In this sense, letting the militias benefit from narcotics was the price to pay for their operation and coordination with the army. Moreover, this could be viewed as the state foregoing the benefits of taxing an economic activity<sup>6</sup> because it would be such a great liability to do so. This is especially true given Colombia's dependence on the United States, and the scandal that president Ernesto Samper had received drug money from the Cali cartel for his presidential campaign was punished by the United States. Rather, the resources of the 'foregone tax' go directly to the militias.

Moreover, the state actually paid a cost for tolerating the drug trade: a study done by Colombian economist Miguel Urrutia (1990) shows the impact of drug trafficking on the Colombian economy. Most profits from the drug trade enter Colombia (i.e, are laundered) through contraband. This actually has a deindustrializing effect, as contraband goods (which are cheaper) compete with the national industry, lowering average prices. Indirectly, contraband damages fiscal revenues not only because these goods do not pay taxes but also because deindustrialization means less companies paying less taxes. Not only that, drug traffickers also increased the demand for land and real estate<sup>7</sup>, making their price go up. Finally, the income from the drug trade also increased inflation and revaluated the Colombian peso

---

<sup>5</sup>Although the vast majority of army commanders saw in the AUC natural allies (or at least tolerated them) regardless of the costs, a few officers took distance and even engaged them. The main example is the now-retired General Rafael Colón Torres, who operated in the department of Sucre and became known for his combats with the militias.

<sup>6</sup>A similar case could be made for extortion: letting the militias collect 'taxes' directly.

<sup>7</sup>Below I briefly show how the AUC was responsible for forced displacement and land dispossession.

relative to the US dollar.

In April of 1997, three self-defense forces came together to create the AUC: the ACCU, the Self-Defense Forces of the Magdalena Medio region and the Self-Defense Forces of the Llanos Orientales region. At the moment of the creation of the AUC, the ACCU alone had 6,000 members (Romero, 2003) and a total of approximately 31,000 members had demobilized by the end of 2006, after peace negotiations between the AUC and the government (Echandía, 2013). It was clearly a sizable force.

The creation of the AUC was a political tactic by the paramilitaries to project a united front and strive for legitimacy and political status. To this end, the AUC copied the rebels in their organizational structure and their use of propaganda (Zelik, 2015): they showed themselves as a necessary actor because of the weakness of the armed forces and the status of defenselessness that it left the country's periphery in.

Their discourse started to get more and more traction when the government of Andrés Pastrana (1998-2002) launched peace negotiations with FARC in 1998, as the rebel group did not keep any ceasefire and continued to defeat the army throughout the periphery. The successive defeats that the army suffered between 1998 and 1999 made Colombians in and around the large cities fear an imminent encroachment by the rebels, which meant that several sectors of society, especially those being extorted by the rebels, to support the paramilitary project (Duncan, 2015).

Regardless of their discourse claiming abandonment, it was clear that the army and the paramilitaries continued to collude. In fact, Zelik (2015) argues that both armed forces benefited from each other's activity at every turn: the AUC controlled areas supported by the army through civilian killings and harassment (thus denying territories and supporters to the rebels), and the state justified the modernization and expansion of its military not only with the rebel threat but also with the mounting number of massacres committed by the AUC.

The AUC financed itself mostly from drug trafficking and extortion, as was explained above. However, they did receive resources from the Colombian government: money destined to legal self-defense groups was diverted to the AUC and its predecessor groups. Not only that, public funding found its way to the AUC through party candidates and alliances with the local governments (Grajales, 2017).

International resources may have also found their way into the AUC. Dube and Naidu (2015) argue that military aid resources from the United States, destined to bolster Colombia's military, found its way into the paramilitary organization. Indeed, they find that the number of attacks by the AUC was greater near the army units that benefited from US military aid than near those that did not. This fits well with our theory: if militias are

already in use, then an increase in resources means an increase in the quantity allocated to both forces.

The AUC spread quickly throughout Colombia and its activity became more and more intense: they went from being present in 279 municipalities in 1997 to 455 in 2002, all the while the number of civilian victims, especially from indiscriminate violence kept mounting (Echandía, 2013). Indeed, in the above-mentioned period Colombia experienced some of its greatest massacres by the paramilitaries: according to the National Center for Historical Memory of Colombia (Centro Nacional de Memoria Histórica, 2018), these were incursions of the AUC into the rearguard of the rebel groups, during which a high level of terror attacks and indiscriminate violence took place, and they were enabled by the regular forces, since the AUC barely had any presence in the south of Colombia, where FARC were strongest.

In one of the most infamous massacres in the municipality of Mapiripán (in a FARC-controlled region), army officials allowed the AUC to land airplanes full of militiamen in airports controlled by the armed forces and then provided them transportation to the future massacre site<sup>8</sup>. Colombia's security forces did nothing to intervene. Not only that, the Green Berets actually provided training to the army brigade closest to Mapiripán both before and after the massacre took place, which seems to indicate that US forces may have known of the collusion and might have been tolerant of these counterinsurgency efforts (Zelik, 2015).

In fact, there seems to be evidence that the US was lax on Colombia despite accusations of the army collaborating with the AUC. A 2001 report by Human Rights Watch shows that US authorities were aware of the ties between the army and the paramilitaries, but this didn't stop the aid flow to Colombia: although US law prohibits the provision of military aid to forces accused of human rights violations (the Leahy Provision), the US government has been lax with its application, and president Clinton even signed a waiver that eliminated the human rights conditionality that Congress pushed for when it came to aid for Colombia (Human Rights Watch, 2001).

However, the Pastrana administration began to persecute the AUC and army officers that colluded with the militias. As Garzón (2005) explains, FARC leaders demanded president Pastrana to put an end to paramilitarism in order to have a successful peace process. The president thus prioritized going after the AUC and dismantle the *Convivir* once and for all. Not only that, the president also ordered the removal of generals accused of having links with the AUC and named a new commander general. The armed forces, however, saw this as a concession to FARC and therefore the deployment of several brigades against AUC was lacking<sup>9</sup>.

---

<sup>8</sup>See the report in <https://www.semana.com/nacion/articulo/el-secreto-militares/70758-3>.

<sup>9</sup>Note here that the regular forces can also become a liability by shirking responsibilities, as is modeled

In addition, some sectors of society also started to break their ties to the AUC in 1999. The motivation was two-fold: first, the 1999 economic crisis that shook Colombia (stemming from the international crisis) made it so that some businesses and cattle-owners had to stop supporting the AUC financially. Second, others were afraid of aligning with the AUC because of their human rights records (Ronderos, 2014). The AUC had thus become a liability to many sectors of society to continue supporting.

But they also became a liability to the state in two ways. First, the AUC expansion was done with such speed and their reach into local and regional state institutions was such that both the central government and the political and economic elites began to consider the AUC as a threat to their own power and their position within the established social order (Duncan, 2015). Indeed, right after their greatest expansion (2001), the so-called ‘July pact’ was signed between regional politicians and the AUC. Whether by coercion or by financing, current and would-be mayors, governors and members of congress became allies or subordinates of the AUC. With the AUC resources and voter intimidation at their disposal, relatively newcomer politicians running as members of new political parties won enough seats in the 2002 election that Colombia’s traditional parties lost their majority in congress, and the share of parliamentarians with links to the AUC would only increase in the 2006 election (Valencia, 2007).

Second, there was the matter of accountability: since the enactment of the new constitution in 1991, transformations of the judicial system and governance institutions, paired with greater international visibility and pressure from Colombia’s NGOs and activists, made it so that the alliances between paramilitaries and the state would become too risky to be maintained (in our model’s terms, both the salience of liability and its production by the militias greatly increased). Indeed, the military were progressively losing their operational autonomy thanks to both the growth of the paramilitaries (loss of the monopoly of internal security) and the incursion of justice in politics, particularly the demand for more human rights protection (Grajales, 2017). In fact, the Constitutional Court weakened the penal status of the military: human rights violations were now considered to be a matter of ordinary penal justice rather than the competence of military courts, which disabled the military’s virtual immunity<sup>10</sup>.

Almost unexpectedly, the AUC and the newly installed government of Álvaro Uribe (2002-2006, 2006-2010) announced that they were negotiating a peace agreement in order to demobilize and reintegrate the AUC into civilian life. Rangel (2005) argues that the AUC wanted to demobilize because of war fatigue among the militia leaders<sup>11</sup>, the expectation

---

in our theory.

<sup>10</sup>This is reminiscent of the argument and tests put forth above in chapter 3

<sup>11</sup>Indeed, Carlos Castaño reportedly told one of his confidants that he had doubts about the prospect of a

that the Uribe government would win the war, and that they would enjoy the same judicial and political guarantees that the guerrilla groups that demobilized in 1991 had.

Secret negotiations began in November 2002 (barely months into Uribe's term) and less than a month later the AUC announced a unilateral ceasefire in order to start negotiations. These started formally in July of 2003, along with demobilization, which would be concluded in 2006. Coincidentally, US authorities were starting to ask for the extradition of the AUC leadership for drug-trafficking in September of 2002<sup>12</sup>. This is reminiscent of Pablo Escobar's negotiation with the government to turn himself in (the so-called *sometimiento*) and all his efforts to put an end to extradition. Indeed, Carlos Castaño asked the US to suspend the extradition orders as negotiations started<sup>13</sup>.

In this regard, the AUC's incursion into politics, starting with the above-mentioned 'July pact', was part of a strategy to transition into civilian life with as little punishment as possible (Valencia, 2007), and so the AUC-influenced congress began to work on legislating the AUC's demobilization. In fact, this could also play out to the benefit of Colombian authorities and army officers, since avoiding truth commissions meant that collusion with the AUC would be more difficult to prove. Demobilizing the AUC (i.e., stopping to use militias) was therefore a way to minimize liability.

However, the legislation that would allow AUC members to demobilize with reduced sentences and without having to testify in front of truth commissions was not accepted by Colombia's higher courts. The Constitutional Court modified the law, dubbed peace and justice (Ley de Justicia y Paz), to safeguard victims' rights and make truth commissions mandatory, whereas the Supreme Court opposed granting AUC members the status of 'political criminals' and with the help of the Attorney General began investigating politicians and army officers accused of ties with the AUC (Grajales, 2013).

To make matters worse, in-fighting within the AUC, especially with regards to drug-trafficking, made it so that in practice the government was negotiating with each bloc on its own (Ronderos, 2014). Not only that, some AUC blocs refused to submit to the peace process, but they were promptly confronted and eliminated by both the government and the other AUC blocs. In this regard, the state had zero tolerance over dissidence in the AUC and thus put pressure on militias so that all would demobilize (Garzón, 2005).

With the courts eliminating the transition to civilian life as the militias had tailored it, military victory against FARC, that the best way forward for the AUC was to turn themselves in (Ronderos, 2014).

<sup>12</sup> "Estados Unidos pide extradición de jefe paramilitar colombiano" [www.eluniverso.com/2002/09/24/0001/14/FCCA47E3D86540338FD34D96BB14497B.html](http://www.eluniverso.com/2002/09/24/0001/14/FCCA47E3D86540338FD34D96BB14497B.html).

<sup>13</sup> "Colombia: 'Paras' contra la extradición" [news.bbc.co.uk/1/hi/spanish/latin\\_america/newsid\\_3056000/3056652.stm](http://news.bbc.co.uk/1/hi/spanish/latin_america/newsid_3056000/3056652.stm)

AUC leaders felt betrayed by the government and, in November of 2003, started to threaten to tell all the truth and implicate many more politicians and army officials. The government moved them to high security prisons and, in May of 2008 suddenly extradited 6 of the top AUC commanders to the US. This way, the six militia leaders were silenced and only paid for drug-trafficking charges.

Despite the ongoing negotiations, collusion between the AUC and the army continued. The launch of the Plan Patriota, Uribe's military offensive initiative to weaken the rebels, paved the way for the AUC to continue its incursion in FARC-controlled territory, especially in the south of the country, which also meant more control over coca plantations and even intensified the dispossession of lands from civilians (Gutiérrez Sanín and Vargas Reina, 2016), much like it had happened in the north of the country.

Indeed, there is evidence that the AUC caused a big share of forced displacement in Colombia: they were involved in protecting the lands of their allies while helping with land grabs. Indeed, there has been massive displacement given indiscriminate violence in Colombia's counterinsurgency operations, and when locals resisted displacement by paramilitaries, even by legal recourse, they were accused of supporting the guerrillas, which made them targets of violence (Grajales, 2011, 2013).

Contrary to the conventional argument of the delegation of atrocities and plausible deniability, the army also continued to violate human rights under certain circumstances. Most infamous was the 'false positives' scandal, in which thousands of civilians were killed, either by AUC or the army, and then presented as rebel group members downed in combat. This followed from perverse incentives: the military were compensated for every rebel casualty with more days off and points for quicker promotions. As the AUC began demobilizing in 2003, the number of false positives began to rise substantively. The regular forces, now devoid of the militias that navigated and kept the population in check by violating human rights, had to look for new ways to show results (Pachón, 2009), and thus became a liability for the government.

Not only that, when Uribe came to power he declared state of commotion in several regions of Colombia and gave the security apparatus more leeway in their activity, which meant more abuses from state forces and it was easier for the latter to produce more false positives, as there was virtually no accountability in these sites. The Democratic Security Policy, as Uribe's main strategy was called, foresaw the retaking of territory from illegal groups through the advancement of the army. Subsequently, the plan was the strengthening of the judicial presence in the retaken municipalities in order to guarantee continued control. The issue was the institutional vacuum in which the army operated, as the Democratic Security Policy did not plan for a mechanism for the judiciary to keep the armed forces in



check (Cárdenas and Villa, 2013).

## 4.2.2 Summing Up

The growth of the counterinsurgency and illegal militias that started in the 1980s, culminating in the founding of the AUC in 1997, thus meant a great risk to both civilians and the state: not only did they commit atrocities, engage in drug trafficking and extortion, they also took control of state institutions in the periphery (Duncan, 2014). Indeed, most deaths from the Colombian conflict were civilians, and most of them were people accused of sympathizing with or aiding guerrillas (Romero, 2003). Moreover, clashes between the AUC and the regular forces occasionally took place, especially as negotiations between the AUC and the government started.

The AUC, in sum, provided the state with some security against rebels in peripheral areas. They defended local elites and communities that were harassed by FARC and ELN while at the same time gathering intelligence to root out members and collaborators of these groups. As has been shown above, not only was there a division of labor between regular and irregular forces, there was also force substitution. In fact, the role specialization was fueled by the substitution, as the army never stopped victimizing civilians, but did it more in the absence of paramilitaries (Zelik, 2015; Pachón, 2009).

The price paid for this security gain (liability in our model), however, in terms of human costs, increases in organized crime activity (especially drug trafficking) and deterioration of democratic institutions, was very high (Mazzei, 2009; Centro Nacional de Memoria Histórica, 2018). Not only that, collusion with the AUC became extremely risky for both army officers and politicians, who in the end were not able to escape justice (Grajales, 2017; Valencia, 2007), even though it was tolerated for a very long time. Indeed, even the US government kept on giving military aid despite overwhelming evidence that it was aiding brigades with ties to the AUC to violate human rights (Human Rights Watch, 2001; Zelik, 2015).

The Colombian paramilitary experience thus provides us with an interesting case to test our theory. They were a cheap but risky tool to bolster security and deny FARC and ELN their advantage based on informational asymmetry. The Colombian government was thus accepting of the risks of supporting the creation and growth of paramilitary groups in several regions of the country. If we find patterns of substitution between the regular forces and the AUC, then we will find evidence in favor of the theory herein.

### 4.3 Research Design

I use the Universidad de los Andes' Economic Development Study Center's (CEDE) municipal panel (Acevedo and Bornacelly, 2014) to analyze the Colombian case. This dataset provides information on socioeconomic, governmental and conflict variables throughout the period of interest. The unit of analysis is the municipality-year. Although the AUC were active in the Colombian civil war between 1997 and 2006, the availability of other variables limit the period under study to 2000-2006.

The dependent variable is the total number of offensives that the Colombian armed forces launched against the rebel groups active in the civil war, FARC (Revolutionary Armed Forces of Colombia) and ELN (National Liberation Army) in each municipality in each year. With it, I aim to capture the amount of activity of the regular forces. Two reasons drive my choice. First, using other types of regular force activity, such as defensive operations, would rather be capturing the rebel groups' activities. Second, and closely related, in the narrative I showed that the AUC had a great deal of autonomy in their operations, and that the army in many ways was simply an enabler of such activity. As such, because of the low (if any) level of control over the AUC the army's activity could be considered more as reactive to what the AUC did.

The main independent variable is thus the number of attacks against the civilian population by the AUC, which captures the amount of activity done by the militia. These attacks range from homicides to kidnappings and armed incursions into populated areas. As was discussed above, militias are usually active in defensive roles and keeping civilians in check in order to deny safe havens, collaborators and new members to the rebels. The AUC's activity was mostly focused on rooting out civilians accused of collaborating with or being sympathizers of FARC and ELN by any means. In other words, the AUC's *modus operandi* was 'draining the sea'. Using AUC attacks against civilians, therefore, captures their main activity in the production of security. As per hypothesis 4.1, I expect to find a negative relation between AUC attacks and armed forces offensives.

To control for conflict conditions I use the number of rebel attacks against the population and the regular forces. This would give us both an identification of which are the regions experiencing the conflict and its intensity. Herein, however, lies a difficulty: conflict events are rare, especially if the unit of observation is the municipality-year. This affects both the dependent variable and the three conflict variables described above. I follow Esarey and Pierce's (2012) strategy to deal with this issue. Since the change from having no events to having at least one is qualitatively different than the change from one to two events, the authors argue for the inclusion of a dummy variable that equals one when the count variable

is greater than zero, and zero otherwise. I implement this for the AUC attacks variable and both rebel attacks variables. The dummies would thus capture the impact of having AUC or rebel activity, whatever it might be, in a municipality, and the original variables capture the intensity of their activity.

To control for municipality characteristics I use the natural logarithm of municipal GDP per capita in constant 1994 Colombian pesos<sup>14</sup>. Unfortunately, this variable is only available starting the year 2000. In addition, I use the natural logarithm of both population and the area (sq. Km.) of each municipality, as well as the natural logarithms of the distance (in Km.) to the capital (Bogotá) and the regional capital.

I also include a dummy variable for the presence of coca plantations to account for the fact that counternarcotics were an integral part of counterinsurgency, since rebel group revenue originated mostly from cocaine<sup>15</sup>. Likewise, since the AUC started peace negotiations and demobilization processes in 2003, I include a dummy to separate both periods of AUC activity (before and during negotiations). The expectations is that after 2003 the army should be more active as the AUC demobilized. Finally, I also use the lag of the dependent variable to control for potential temporal dynamics, as a region that the regular forces target one year is very likely to be targeted the next. Table 4.1 presents a summary of the variables.

The model of choice is the negative binomial. To test for robustness, I also use random effects to control for unit heterogeneity, and alternatively I use a zero-inflated negative binomial regression since the dependent variable is zero in a great number of observations. The regressors for the inflate equation are all variables save for AUC activity. A further robustness check accounts for the potential issue of endogeneity between the dependent variable and rebel activity. I use two-stage least squares regressions in which I use the lag of the rebel activity variables as instruments for the current values.

As final controls I also use regional fixed effects in order to tackle two issues: first, that the AUC were not active in all regions, and second, that the dynamics of each region of Colombia could have been different regarding counterinsurgency. After all, the AUC was a federation of militias, and so each bloc could have had idiosyncratic behavior based on who were leading them, and explains in-fighting and confrontation with the government. As Gutiérrez Sanín and Vargas Reina (2016) argue, paramilitarism in Colombia was localist and regionalist by design, which means that there may some idiosyncratic behavior of each

---

<sup>14</sup>This variable I constructed using the CEDE panel's data on GDP and the implicit price deflator calculated by the national statistics department of Colombia, DANE, available in the Bank of the Republic website: <http://www.banrep.gov.co/pib-base-1994>. I chose to use 1994 as the baseline for ease of calculations, given the available information

<sup>15</sup>Indeed, this was all the idea behind Plan Colombia, to bolster the military to eliminate drug trafficking, thus indirectly hurting rebel finances

Table 4.1: Summary Statistics

Variable	Mean	Std. Dev.	Min	Max
DV: Reg. Forces Offensives	1.1048	3.1532	0	81
AUC Attacks vs. Civilians	0.2006	0.7737	0	20
Rebel Attacks vs. Civilians	0.6049	1.5972	0	32
Rebel Offensives	1.5015	4.2358	0	73
Ln GDP per capita	16.5013	0.7683	12.8728	19.8969
Ln Distance to Bogotá	5.5468	0.7737	0	7.1482
Ln Distance to reg. capital	4.0880	0.9912	0	6.2027
Ln Area	5.8220	1.2819	2.7081	11.0925
Ln Population	9.5119	1.0937	5.3279	15.7536
Coca presence	0.1658	0.3719	0	1

component group of the AUC.

Second, the data available is about the activity of armed forces on either side of the war, but not on presence nor control over sites. Thus, the fact that army activity in a region is very low while AUC activity also is could be because one of the actors controls this region so well that deployment here is not wont<sup>16</sup>.

## 4.4 Results

Tables 4.2 and 4.3 present the regression results. Consistent with our hypothesis, the number of AUC attacks against civilians is negatively related to the number of offensives that the Colombian armed forces launch against the rebel groups in a given municipality. This is indicative of force substitution: the more active the AUC are in a municipality, the less active the armed forces are in targeting rebels directly. This is despite a clear role differentiation between the forces.

At simple glance, one might say that these results are consistent with the conventional wisdom that states delegate atrocities to militias because they can't do them themselves. However, the conventional wisdom is silent regarding how militia activity is related to how the regular forces engage the rebels directly, which is what was tested here. Moreover, recall from the narrative above that the Colombian army never stopped violating human rights,

<sup>16</sup>This is the case, for example, of the department of Córdoba in the north of Colombia, one of the strongholds of the AUC.

Table 4.2: Correlates of Armed Forces' Offensives

	Neg. Bin. (1)	Neg. Bin. (DV lag) (2)	Neg. Bin. RE (3)	Zero-infl. Neg. Bin. (4)	IV reg (5)	IV reg RE (6)
AUC attacks vs. civilians	-0.0703* (0.0312)	-0.0539+ (0.0304)	-0.0398* (0.0144)	-0.0378 (0.0258)	-0.446* (0.0679)	-0.540* (0.108)
AUC attacks dummy	0.109 (0.0819)	0.120 (0.0795)	0.0505 (0.0536)	0.0582 (0.0712)	0.212 (0.137)	0.302+ (0.182)
Rebel attacks vs. civilians	0.0677* (0.0133)	0.0549* (0.0124)	0.0325* (0.00685)	0.0733* (0.0106)	0.820* (0.112)	0.963* (0.299)
Rebel att. vs. civ. dummy	0.546* (0.0546)	0.509* (0.0526)	0.433* (0.0461)	0.146* (0.0548)	-1.349 (0.987)	-3.791 (3.391)
Rebel offensives	0.0479* (0.00514)	0.0234* (0.00479)	0.0225* (0.00214)	0.0446* (0.00394)	0.429* (0.0176)	0.452* (0.0292)
Rebel offensives dummy	1.446* (0.0509)	1.344* (0.0497)	1.258* (0.0568)	0.687* (0.0646)	0.694 (0.649)	2.163 (2.178)
Ln GDP per capita	0.195* (0.0303)	0.142* (0.0294)	0.167* (0.0368)	0.111* (0.0320)	0.129* (0.0416)	0.168* (0.0639)
Ln dist. to Bogotá	0.000157 (0.0328)	-0.00415 (0.0313)	-0.0120 (0.0401)	-0.0657+ (0.0360)	-0.0564 (0.0399)	-0.0657 (0.0551)
Ln dist. to reg. capital	0.0356 (0.0228)	0.0310 (0.0217)	0.0135 (0.0279)	0.0855* (0.0211)	0.159* (0.0362)	0.206* (0.0740)
Ln area	0.333* (0.0226)	0.292* (0.0218)	0.306* (0.0283)	0.190* (0.0244)	0.163* (0.0327)	0.172* (0.0440)
Ln population	0.0560* (0.0235)	0.0263 (0.0228)	0.0864* (0.0293)	0.0664* (0.0242)	-0.0244 (0.0379)	0.0322 (0.0864)
Coca dummy	0.299* (0.0575)	0.245* (0.0558)	0.216* (0.0606)	0.239* (0.0554)	0.281* (0.0962)	0.135 (0.150)
Negotiations dummy (2003)	0.531* (0.0460)	0.359* (0.0450)	0.395* (0.0390)	0.562* (0.0492)	0.473* (0.0650)	0.365* (0.117)
Lag DV		0.121* (0.00794)	0.0254* (0.00335)			
Constant	-7.804* (0.619)	-6.305* (0.602)	-7.018* (0.761)	-4.271* (0.654)	-3.356* (0.930)	-4.642* (1.815)
N	7674	7668	7668	7668	7668	7668

Standard errors in parentheses, +  $p < 0.10$ , \*  $p < 0.05$

Table 4.3: Correlates of Armed Forces' Offensives (Regional FE)

	Neg. Bin. (1)	Neg. Bin. (DV lag) (2)	Neg. Bin. RE (3)	Zero-infl. Neg. Bin. (4)	IV reg (5)	IV reg RE (6)
AUC attacks vs. civilians	-0.0742* (0.0296)	-0.0582* (0.0297)	-0.0394* (0.0149)	-0.0388 (0.0255)	-0.437* (0.0697)	-0.503* (0.0927)
AUC attacks dummy	0.0371 (0.0786)	0.0612 (0.0779)	0.0421 (0.0543)	0.0325 (0.0705)	0.0572 (0.138)	0.133 (0.165)
Rebel attacks vs. civilians	0.0586* (0.0128)	0.0511* (0.0123)	0.0320* (0.00674)	0.0732* (0.0105)	0.793* (0.117)	0.898* (0.218)
Rebel att. vs. civ. dummy	0.496* (0.0534)	0.460* (0.0520)	0.408* (0.0457)	0.160* (0.0544)	-2.099+ (1.191)	-4.046 (2.728)
Rebel offensives	0.0508* (0.00504)	0.0295* (0.00481)	0.0236* (0.00226)	0.0440* (0.00388)	0.482* (0.0190)	0.497* (0.0239)
Rebell offensives dummy	1.390* (0.0507)	1.294* (0.0500)	1.174* (0.0564)	0.686* (0.0645)	1.194 (0.796)	2.389 (1.792)
Ln GDP per capita	0.0706+ (0.0407)	0.0577 (0.0397)	0.181* (0.0491)	0.120* (0.0321)	-0.116* (0.0536)	-0.114+ (0.0672)
Ln dist. to Bogotá	0.106 (0.0817)	0.140+ (0.0800)	0.0615 (0.101)	-0.0562 (0.0354)	0.231* (0.106)	0.250+ (0.134)
Ln dist. to reg. capital	-0.00313 (0.0252)	-0.00295 (0.0243)	-0.0154 (0.0301)	0.0749* (0.0211)	0.166* (0.0397)	0.190* (0.0579)
Ln area	0.372* (0.0296)	0.336* (0.0288)	0.381* (0.0366)	0.197* (0.0244)	0.110* (0.0429)	0.104+ (0.0559)
Ln population	0.0398 (0.0276)	0.00951 (0.0274)	0.0547 (0.0339)	0.0569* (0.0242)	0.00315 (0.0454)	0.0440 (0.0756)
Coca dummy	0.208* (0.0641)	0.192* (0.0627)	0.138* (0.0649)	0.236* (0.0551)	0.174+ (0.101)	0.139 (0.120)
Negotiations dummy (2003)	0.541* (0.0457)	0.380* (0.0454)	0.392* (0.0404)	0.567* (0.0491)	0.489* (0.0689)	0.413* (0.100)
Lag DV		0.105* (0.00770)	0.0244* (0.00335)			
Constant	-5.685* (0.864)	-5.233* (0.842)	-7.378* (1.061)	-4.379* (0.654)	-0.308 (1.158)	-0.790 (1.478)
N	7674	7668	7668	7674	7668	7668

Standard errors in parentheses, +  $p < 0.10$ , \*  $p < 0.05$

the demobilization of the AUC spiked the number of false positives, and declaring a state of commotion in some regions gave the army such leeway that more violations were committed without punishment.

We can also see that more offensives are likely to be launched in larger municipalities with greater GDP per capita that experience higher levels of rebel violence. These results seem to be intuitive: a larger territory requires more operations to secure, and the greater the value of a territory (measured by the per capita income) the more salient it becomes to defend it (or take it back) from the rebels. Likewise, army operations are higher where there is presence of coca plantations and after 2003. How far away the municipalities are from the national and regional capitals and their population, however, are not significant across all models.

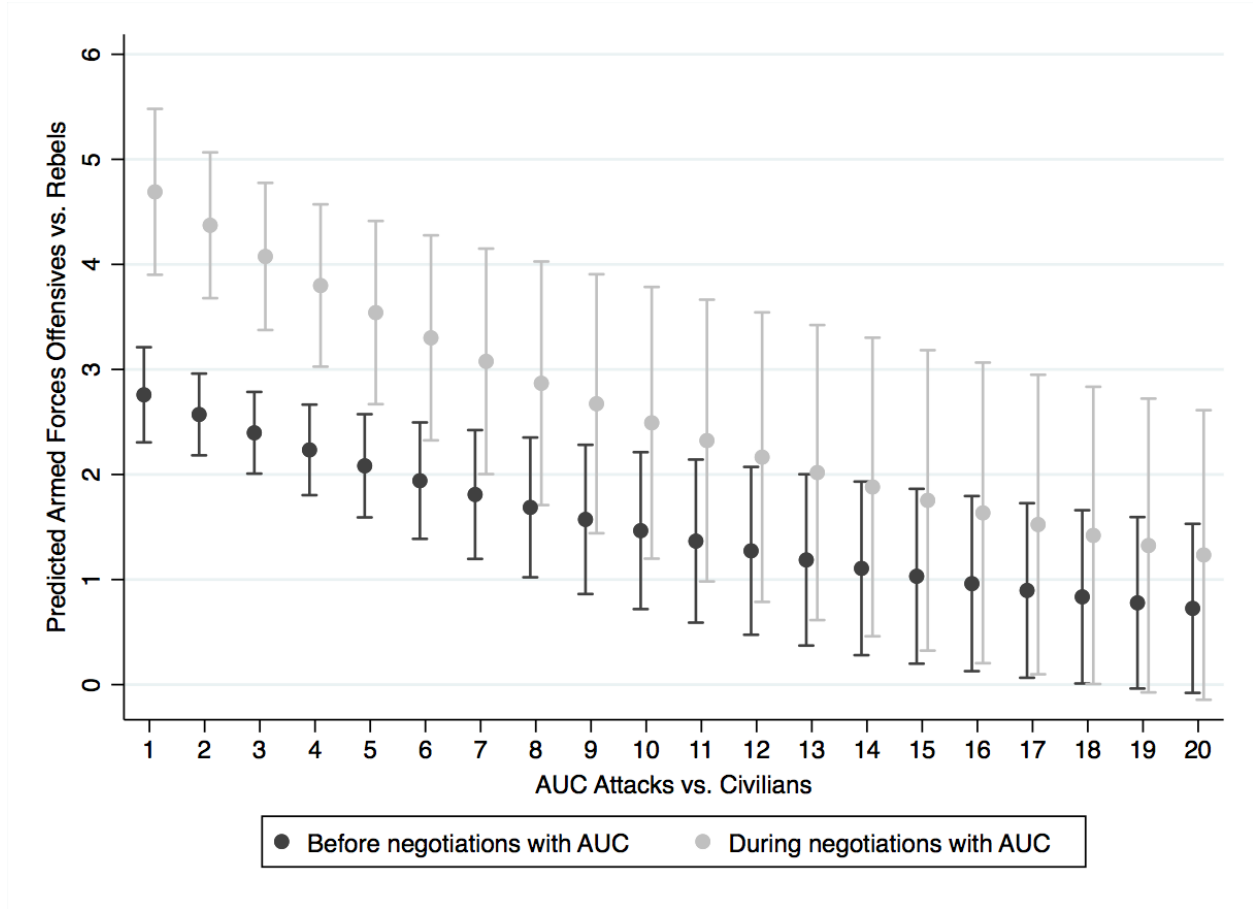
As can be seen from all specifications, the results seem to be quite robust, except when it comes to the zero-inflated models (although the p-values are less than 0.15). Endogeneity issues between the levels of rebel and army activities do not seem to be affecting the results, as can be seen from models 5 and 6 in both tables. Moreover, accounting for temporal dynamics (i.e., the former level of regular force activity) does not seem to undermine the results either. Likewise, as is clear from table 4.3, accounting for both regional and municipal characteristics and non-observables does not change the results.

To further explore the relation between AUC and armed forces activities, I use Stata's margins command based on model 1 from table 4.2 and plot the results. All dummy variables, except negotiation, are set to 1, both rebel attacks vs. civilians and the armed forces are set to 5 (typical values), and AUC attacks versus civilians varies from 1 to 20. I also differentiate the periods before and during negotiations with the AUC. The results are shown in figure 4.1.

As can be seen, when AUC activity increases from one to ten attacks, the expected number of attacks by the regular forces decreases by approximately half. Municipalities experiencing no AUC activity are expected to have an average of 2.1 offensives by the regular forces before negotiations with AUC started (that is, before 2003) and 3.51 offensives during negotiations. The expectation when there are ten AUC attacks, however, is 1.14 and 1.93 offensives by the armed forces before and during negotiations, respectively.

Overall, it would seem to be that the substitution effect of militia activity is relatively small (roughly a 0.2 decrease in the expected value of regular force activity per unit increase of AUC activity). This shouldn't be surprising: as was said above, civil war events are a rare phenomenon. Nevertheless, in relative terms it is quite significant, especially if we consider larger changes in AUC activity: municipalities that experience no AUC attacks also experience, on average, almost twice the number of regular forces offensives against rebels

Figure 4.1: Expected Army Offensives Given AUC Attacks



than municipalities that experience ten AUC attacks against civilians.

#### 4.4.1 Substitution or Division of Labor?

A critique that could be made to the results shown above is that what the regressions could be capturing is simply the division of labor rather than force substitution, since it could just be the case that AUC attacks against civilians happen in places where the army does not launch offensives against rebels and vice-versa. However, as can be seen in figure 4.2, there is still quite the variation when the full sample is reduced to municipality years in which both forces were active, and the relation found in the regression analysis above seems to be holding.

To further address this, I run the models in table 4.2 using the reduced sample, that is, only the municipality years that had both army and AUC activity. The results are shown in table 4.4.

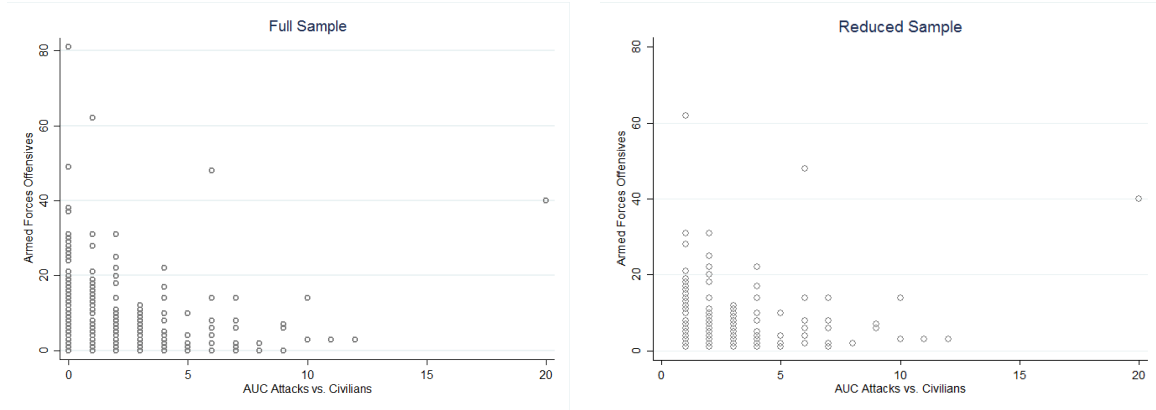


Table 4.4: Correlates of Armed Forces' Offensives (Reduced Sample)

	Neg. Bin. (1)	Neg. Bin. (DV lag) (2)	Neg. Bin. RE (3)	Zero-infl. Neg. Bin. (4)	IV reg (5)	IV reg RE (6)
AUC attacks vs. civilians	-0.0392 <sup>+</sup> (0.0202)	-0.0416* (0.0200)	-0.0547* (0.0148)	-0.0392 <sup>+</sup> (0.0202)	-0.363 (0.226)	-0.363 (0.230)
Rebel attacks vs. civilians	0.0517* (0.0101)	0.0458* (0.00972)	0.0425* (0.00856)	0.0517* (0.0101)	0.751 (0.472)	0.751 (0.478)
Rebel att. vs. civ. dummy	0.117 (0.0935)	0.112 (0.0912)	0.0989 (0.0891)	0.117 (0.0935)	-7.359 (10.56)	-7.359 (10.71)
Rebel offensives	0.0365* (0.00419)	0.0248* (0.00443)	0.0223* (0.00369)	0.0365* (0.00419)	0.442* (0.0670)	0.442* (0.0680)
Rebel offensives dummy	0.415* (0.127)	0.400* (0.125)	0.354* (0.125)	0.415* (0.127)	2.968 (7.431)	2.968 (7.540)
Ln GDP per capita	0.0845 (0.0601)	0.0846 (0.0583)	0.0450 (0.0640)	0.0845 (0.0601)	-0.0797 (0.740)	-0.0797 (0.751)
Ln dist. to Bogotá	0.0582 (0.0577)	0.0747 (0.0560)	0.0164 (0.0601)	0.0582 (0.0577)	0.0140 (0.386)	0.0140 (0.392)
Ln dist. to reg. capital	0.0170 (0.0288)	0.0153 (0.0280)	0.0173 (0.0326)	0.0170 (0.0288)	0.209 (0.212)	0.209 (0.215)
Ln area	0.0432 (0.0394)	0.0312 (0.0383)	0.0604 (0.0410)	0.0432 (0.0394)	0.237 (0.341)	0.237 (0.346)
Ln population	0.0420 (0.0385)	0.0343 (0.0374)	0.0237 (0.0432)	0.0420 (0.0385)	0.103 (0.266)	0.103 (0.270)
Coca dummy	0.0617 (0.0887)	0.0421 (0.0862)	0.0467 (0.0902)	0.0617 (0.0887)	-0.494 (0.955)	-0.494 (0.969)
Negotiations dummy (2003)	0.453* (0.0738)	0.297* (0.0763)	0.353* (0.0717)	0.453* (0.0738)	1.806* (0.834)	1.806* (0.847)
Lag DV		0.0498* (0.00849)	0.0220* (0.00663)			
Constant	-2.228 <sup>+</sup> (1.248)	-2.124 <sup>+</sup> (1.212)	-0.393 (1.346)	-2.228 <sup>+</sup> (1.248)	0.258 (13.30)	0.258 (13.50)
N	453	453	453	453	453	453

Standard errors in parentheses, <sup>+</sup>  $p < 0.10$ , \*  $p < 0.05$

Figure 4.2: AUC Activity and Armed Forces Offensives



As can be seen, the number of AUC attacks against civilians continues to be negatively related to the number of offensives by the armed forces. In most models, it is statistically significant, and in models 5 and 6 they are barely not significant relative to the 0.1 level (p-values of 0.109 and 0.115, respectively)<sup>17</sup>. These results are also robust to the inclusion of the regional fixed effects as was done for table 4.3, except for models 5 and 6, in which the sign of the coefficient remains the same but loses significance.

In sum, the evidence shown here tells us that not only is there a division of roles between the AUC and the army, there is also substitution among them: the more active the AUC is in a municipality, the less active the regular forces are in the same. In this sense, although both tools have a different immediate target (civilians or rebels), it seems to be the case that they achieve the same ultimate goal, and so the state combines them.

## 4.5 Concluding Remarks

This chapter has tested some of the implications of the economic theory of Pro-Government Militias, namely that states regular and irregular forces are substitutable.

Using data from Colombia's paramilitary experience during its most recent civil war, I explored how the government combines both forces. Since each has advantages relative to the other, then we should expect a distribution of efforts between the forces in which the type of threat faced is met as effectively as possible. Using militias to complement the regular forces, however, necessarily means using less of the latter. In other words, not only is there combination but also substitution of forces. I have found support for the proposed hypothesis: the Colombian Armed Forces are more likely to launch a higher number of

<sup>17</sup>In fact, the p-values of models 1 and 4 are barely above the 0.05 level

offensives against rebel groups in regions where AUC activity is lowest, all else equal.

This chapter thus presents evidence that there is indeed force substitution at the local level. It seems to be the case that role specialization plays an important role in engaging in civil war, not only in terms of combining forces but also in terms of substituting them. Indeed, the state is not only willing to accept the risk of a militia being active in its territory, but that it reorganizes its tactics around this fact.

The study presented in this chapter has several implications. First, it points to a new avenue of understanding civil war dynamics: that the deployment of state forces, both regular and irregular, obeys a calculus of efficiency. Thus, to understand how the state engages rebels we must account for how the state deploys its forces. Likewise, it also points out to potentially determining how rebel tactics change, since the presence of militias may make a region more prone to experiencing particular types of violence.

Second, it might be possible to use the level of activity of a state's regular forces to predict the presence and activity of militias, which is relevant for human rights protection. This is especially important regarding informal militias: since the link they have with the government is typically clandestine, then understanding variation in what the regular forces do in comparable regions may allow us to evaluate the likelihood that an informal militia is active there. Moreover, as we saw in the Colombian narrative, this goes for both their typical activity (attacking rebels), as well as human rights violations: if an army has a history of victimizing civilians, then changes in the patterns of such victimization may make it suspect that they are collaborating with militias, especially if the overall number of human rights violations remains largely constant or even increases.

Future research can focus on expanding these tests in two ways. First, the study could be complemented with other case studies in order to ensure better generalizability and robustness of the findings. Second, since in this particular study only a militia with an informal link to the state was considered, future studies should explore civil wars in which official militias are (also) present in order to assess whether they impact regular force activity differently than informal militias.

# Chapter 5

## Conclusion

### 5.1 What Have We Learned?

The goal of this study has been to explain under what circumstances states use militias. The extant literature presents an explanation based on a principal-agent logic in which states use militias to perform various security tasks, such as coup-proofing, population controls and counterinsurgency. One of the main points of the literature is that states delegate human rights violations in order to shift responsibility away from them, and thus militias are the agents that do the state's 'dirty work'.

I have claimed that this view is problematic for several reasons, both theoretical and empirical. First, it would seem to assume that the state always wants to violate human rights, that is, there is an inherent benefit to violating human rights, regardless of context. Yet, as we know from the repression-dissent literature coercion can backfire.

Second, it is not clear whether human rights violations stem from loss of agency or from actual delegation. Yet, the works on militias do not specify how we may empirically distinguish between both, and it might actually be impossible. Indeed, it seems like the literature treats human rights violations as 'fortunate' agency loss. Moreover, some authors seem to argue that agency loss happens at the recruit level rather than at the organizational level, which then casts doubt on whether the state and the militia actually wanted the members to abuse civilians or it is ordained by militia commanders contrary to the state's wishes.

Third, the principal-agent logic is not applied completely. At the heart of it is how the principal sets up incentives so that the agent performs well (i.e., minimize shirking and conflict of interests), and how it punishes an underperforming agent, given that success is both a function of effort and factors beyond the agent's control. Assuming that human rights violations are the task that is delegated, then what does it mean to perform well? Would

the state punish a militia for victimizing too much, too little, or not at all?

This brings us to a first empirical problem: not all militias violate human rights, and those that do usually do so in tandem with the government, as Jessica Stanton (2015) points out. Thus, if the security forces also victimize civilians, then human rights violations are not being delegated to militias. The task assigned to militias, then, must be specified more generally and human rights violations treated differently. I have argued that the task delegated is security in general and human rights violations are a negative by-product of the delegation, but it could happen through the use of either regular or irregular forces.

The second empirical problem is that plausible deniability does not seem to work: politicians and army officers are still punished for using or colluding with militias. At the very least, this tells us that there is an inherent accountability risk in delegating atrocities that cannot be escaped, and so the use of militias that violate human rights is either a decision based on the likelihood of being caught or a cost that the state is willing to pay in exchange for something else (security).

Finally, and returning to the first empirical problem, the current explanation for militias does not take into account well enough that the decision of using militias is made in relation to the regular forces already in use. Indeed, there is a trade-off inherent to using irregular forces to bolster the regular ones, but this is not addressed in the literature.

Taking these issues into consideration, this study has presented an alternative. I have developed a consistent, general framework, which I dubbed The Economic Theory of Pro-Government Militias, that analyzes under what circumstances do states use militias. Taking policy substitutability as the starting point, I modeled the trade-offs that the government faces when allocating its resources between its regular and irregular forces in order to face a security threat, and the trade-off between producing security and the risk that either force will become a liability when used.

In brief, the theory argues that states optimize their resource allocation between its available forces based on the cost-effectiveness with which they produce security, both in relation to each other and in relation to how risky it is to use each, as well as how much the state values security relative to liability. In this sense, I have assumed nothing about how each force produces security, only that some may be more dangerous to employ than others, and human rights violations and being held accountable for them are a couple of such dangers for the state.

The model allows understanding the substitution of forces and the trade-off between provision of security and risk inherent to the use of armed forces. It can be used to understand who uses militias and where, as well as how their use impacts the use of the regular forces and, therefore, the dynamics of conflict. What was achieved then was providing a more nuanced

understanding of militia use based on the factors identified in the literature. In particular, it is the first study to systematically combine both the advantages and disadvantages (risks) of militias, both in and of themselves and in relation to the regular forces, in understanding the state's decision to use them, as other studies have usually focused on only one aspect at a time.

Throughout chapters 3 and 4 I have performed empirical tests that have given favorable evidence for the theory, both cross-nationally and subnationally. Chapter 3 presents cross-national evidence that shows under which conditions states are more likely to use militias. It focuses on domestic accountability in particular because the expectation of the economic theory of pro-government militias is exactly the opposite of the expectation of the 'plausible deniability' argument, which posits that the more accountable a state can be held the more incentive it has to use militias.

I find that states that face a civil war are more likely to use militias, conditional on the strength of their judiciary and how much control the state has over them. The conclusion is that militias in general, but more autonomous ones in particular, are more likely to be used when judicial independence is low. Militias under greater state control, however, are more likely to be used regardless of judicial independence.

In this regard, it seems that states are sensitive to domestic accountability mechanisms, even when it comes to using clandestine groups, as a strong judiciary can still hold leaders responsible for the actions of militias. Thus, contrary to the 'delegation of atrocities' argument in the literature, states do not use militias because they want the dirty job to be done but rather because it is calculated that the state will be safer if it uses militias despite them doing dirty work.

What the theory and the cross-national evidence imply in terms of policy is that domestic accountability mechanisms are key in preventing clandestine militia actions and therefore preventing human rights abuses. In this sense, the greater the accountability of the executive the more it will prioritize having more control over security forces in order to minimize the likelihood that they become a liability.

In addition, the theory has shown that international aid may actually be funding the use of militias and therefore indirectly promoting the victimization of civilians in civil war settings rather than empowering them. Since informal militias are such a common phenomenon around the world, then it would be of great interest to the international community to engage in measures that increase both domestic and international accountability in order to discourage the use of militias that fight dirtily. Indeed, from the evidence presented here it would seem that a significant investment in governance and, especially, judiciary systems as part of the developmental aid would be most useful.

Chapter 4, on the other hand, presents a case study of the United Self-Defense Forces of Colombia (AUC), a militia active in Colombia's most recent civil war. The goal of this chapter was to assess the substitutability claim of the theory: given a fixed budget, by allocating resources to one force the state will necessarily have less resources left to allocate to the other one. What I thus analyze is policy substitutability.

To test this, I examined the statistical relation between the level of activity of the AUC and the level of activity of the Colombian Armed Forces. Through this test I move beyond the issue that resource allocation may not be observable. Rather than attempting to directly test how states spend their budget, it is straightforward to assume that the more resources spent on one force, the more activity we should expect from them. As such, the expectation is that the level of activity of one force is negatively related to the other's.

The subnational evidence shows how states combine forces and that there is indeed force substitution: the higher the number of AUC attacks against civilians in a region, the fewer the offensives the Colombian Armed Forces launched against the rebels in the same. Force substitution thus happens despite there being role specialization, as the Colombian case showed. States thus not only add militias to their armed forces but rather distribute them following an optimization strategy that has substitutability at its core.

This opens up potential research regarding the micro-dynamics of civil war and how the state uses both regular and irregular forces to face different types of domestic threats. Indeed, the theory can be used to understand the specific circumstances under which militias are deployed and used, both in terms of the characteristics of the civil war as well as the regions they are active in and the state's institutions therein.

Moreover, since there is a substitution effect, then observing different levels of regular force activity across comparable regions may allow us to predict militia activity, especially when said militia has an obscure or clandestine link to the government. Indeed, the patterns of human rights violations we observe may be indicative of force substitution, which would therefore allow for suspecting the government's role in civilian victimization and thus hold it accountable.

This is, then, of interest to not only scholars of military operations and military and state leaders, since the use of militias also impacts how the regular forces are used, but also to human rights advocates and NGOs, since the theory points to ways to understand the specific circumstances under which militias come to be used. In this sense, understanding the calculus of the state about force deployment may allow communities to shield themselves from irregular forces that could potentially be victimizers by finding ways of increasing the liability to the state<sup>1</sup>.

---

<sup>1</sup>Communities may even be able to shield themselves from irregular forces' actions themselves, as the

## 5.2 Future Research

The theory developed in this study is intended as a general framework with which to understand the circumstances under which a state would choose to use militias and how it combines them with the regular forces. In chapter 2 I have briefly developed some implications of the model and tested a couple in chapters 3 and 4.

I chose to test these particular implications for two reasons. first, the one in chapter 3 provided me with the opportunity to assess the merits of the theory relative to the conventional wisdom, since the expectations following from them are at odds. The evidence shown is consistent with my argument. Second, I chose to perform a case study in chapter 4 to show that the theory can be used to understand the phenomenon of militia activity at different levels of aggregation. Chapter 4 showed that at the municipal level the logic of force substitution put forth by the theory holds.

A coherent research program on militia use can be made based on this model. In this section I explore avenues of research, both empirical and theoretic, that stem from this dissertation.

### 5.2.1 Exploring the Theory's Implications

The first step for future research is thus to explore more of the implications of the model. Recall that the state's decision depends on the amount of resources available, how the forces compare to each other and the security-liability trade-off of each, as well as how salient security is relative to liability. These point to different venues of research. First, regarding budgetary considerations, we could explore the impact of positive and negative shocks on a country's economy on the likelihood of using militias. Positive shocks, such as economic growth or aid reception, whether developmental or military, may trigger the use of militias.

The study of foreign aid is of particular importance given the debate that this work has started: since the literature regards aid dependence as an incentive to delegate atrocities and my theory regards increases in budget as triggers to militia use, then future work should find a way to better assess both. Moreover, militia use might be pushed by military aid donors, as the resource flow could be designed to support the creation of militias as part of a broader initiative. Negative economic shocks, on the other hand, might make states stop using militias, or use ones that are cheaper but riskier. As the Colombian case shows, the cost of using some militias can be indirect, such as tolerating their self-financing through illegal means that the government may not be able to tax or that even damage the economy.

---

work of Oliver Kaplan (2013a,b) shows.



The theory also tells us that the decision to use militias and how much to spend on them depends on how they fare in producing security relative to the regular forces. In this work I have argued, in line with the literature, that militias hold an advantage relative to the regular forces inasmuch they are flexible, adaptable, and may have better local information that allows them to navigate the population and the geography easily. This can be made more nuanced if we take into account, for example, the quality of the regular forces. The stronger the army and the better trained it is in counterinsurgency or counterterrorism, for example, the less the state may rely on militias.

Given the advantages of militias identified by the literature, then more theorizing could be made regarding different types of threats the state faces. In civil wars in particular, the type of rebellion faced might help explain why some states use militias while others don't, and what determines the timing of their use. For example, since guerrilla warfare abuses informational asymmetry, then when rebels use hit-and-run tactics we should be more likely to see militias deployed than when rebels wage a more conventional war.

Relatedly, deeper study of minorities within states is also warranted. In this study I have used ethnic diversity in the most general way, but comparing ethnic and non-ethnic civil wars would allow to assess whether states use militias of the same ethnic group as rebels to drive a wedge between factions of the minority. This would be an interesting complement to the work of Fanglu Sun (2016) on territorial autonomy and ethnic conflict: the state may not only 'buy out' a faction of a minority with some degree of autonomy so that it only wages war against the hardliners, it might even receive the aid of the friendly faction in the armed confrontation.

Since rebel tactics may vary across time, the history of the conflict the state is engaged in is also of interest. Based on the model, when security becomes more important than the risk inherent to producing it, then we should see militias being used. Thus, both changes in how rebels engage the state (see point above about tactics) and how successful they are could make a state use militias in spite of a high risk of them becoming a liability. Moreover, as the Colombian case above showed, the liability of using militias may also change over time.

As such, changes in domestic and international pressures for human rights protection, for example, could tilt the balance away from militia use, especially those that would pose a greater risk to civilians. Thus, we should also study how changes in accountability is correlated with the timings of militia use and disuse. For example, signing human rights treaties would not only increase the salience of liability, but also make it riskier for states to use militias that it may not control well. In addition, changes in the state's leadership might actually change how salient the good are the bad are for the state, as the new leader might assess a security situation differently than the predecessor.

### 5.2.2 Expanding the Theory

The theory presented here is based on a model that is relatively simple but has great traction, since its logic can be easily applied to any case and, although the theory itself cannot be tested directly, its implications are relatively straightforward to test, as the work above has shown. Nevertheless, the theory can also be expanded in many ways.

First, I have assumed that the state has only two instruments to produce security. A simple extension is to relax this assumption and disaggregate the types of forces used within the regular and irregular categories. This might be especially beneficial in studying the variance among militias that states use. Although the Pro-Government Militia Database (Carey, Mitchell and Lowe, 2013) gives us general characteristics of the militias it identifies, these have not been systematically used in the literature (some exceptions being Clayton and Thomson, 2016; Carey and Mitchell, 2017), but rather only the type of link to the government. As such, the theory would allow for distinguishing the effectiveness of each type of militia given the security concern to be addressed and how risky it is to use each militia.

Second, I have assumed that the state is able to allocate any amount of resources into either force, whereas in reality it might not be able to do exactly that. Rather, resource allocation into any force may come in ‘chunks’. For example, one extra dollar invested into the army would not be effective at all. In this sense, it might be useful to redefine  $I_r$  and  $I_i$  as units of forces used rather than money spent. By creating a cost function (that is, assigning a cost to each unit of each force to be used) then we may be able to further explore budgetary issues.

Third, the model posits that the state’s utility is given by the combination of forces, but it assumes that it is simply a sum of efforts. In other words, the model supposes that the production of security (and liability) of each force is independent of the other. Following Wolford’s (2015) model of military coalitions, changing the model to account for how well the efforts of the forces are combined may give us further insights on how states use their forces. In this sense, depending on the characteristics of both regular and irregular forces, it could be the case that the combination of forces is not simply the sum of its parts, but rather they amplify or impede one another.

Finally, it must be noted that the theory presented here is decision-theoretic: I only study how a state decides to optimally allocate its resources while assuming that other actors are exogenous. To complement it, the theory could be expanded to also include the rebels’ decision-making in terms of which types of attacks they carry out (indeed, rebels also face policy substitutability in their campaign). The same goes for the militias: deciding whether to turn against the state or shirk their responsibilities is also a strategic decision.

### 5.3 Policy Implications

The theory also leads us to several policy implications. Overall, the theory allows us to understand not only how states structure their security forces, which means that it can tell us not only how states make such structuring optimal but also how to constrain states into providing security with as little liability as possible.

Through chapter 3 I have discussed the importance of domestic accountability in constraining the use of militias. The implication is that human rights advocacy would benefit from pushing for stronger, independence court systems that make it costlier and riskier for leaders to use unscrupulous agents.

Likewise, in chapter 4 I have argued and shown that there is indeed policy substitutability. As such, patterns of civilians victimization by militias could be easily traced back to the patterns of regular force deployment, and as such pressure governments to rein in their militias or forsake their use altogether.

Using the theory we can also analyze how else it could be possible to minimize violence against civilians by militias. Internationally, for example, aid donors could make a stronger case for pushing for institutional development, especially when it comes to checks and balances, as either the goal of, or a condition for, aid flows. Likewise, the theory tells us that states providing military aid should beware that they may be indirectly allowing the state to use militias that would violate human rights, and as such should pay more attention to how the recipient uses said aid, as the case of Colombia illustrates (see chapter 4 and Human Rights Watch, 2001).

On the other hand, the theory also tells us that, depending on the circumstances, using militias to enhance security could be more cost-effective than simply expanding the regular forces. This is in a way reminiscent of Ahram's (2011) discussion of state-building through the use of militias inasmuch achieving the Weberian ideal of the monopoly of violence may be unfeasible, at least initially. What the theory tells us is that militias can be (and usually are) part of a state's optimal strategy in producing security. Moreover, this need not put civilians in risk: militias can be set up in such a way that human rights are respected and communities protected.

In this sense, we again turn to implications for the international community: securing areas in weak states or post-conflict scenarios could plausibly be done by mobilizing local communities into official, controllable militias. For example, the US collaborated with the so-called Northern Alliance in Afghanistan to fight against the Taliban and secure the northern territories and populations. Again, the greatest issue would be how to set up militias in such a way that they do not become a liability for the state nor a danger to the civilians they are

supposed to protect.

International and domestic actors can also make the use of unscrupulous militias less likely not only by making it costlier (i.e., an increase in liability), but also by making the issue more important (i.e., increasing the relative salience of liability over security). The more attention is paid to human rights, for example, through better reporting and whistleblowing, the more likely a state will show restraint and demand it from its agents. This is particularly important for peaceful dissident movements: knowing how much their adversary (i.e., the state) could be held accountable for using militias, even in secrecy, will better inform dissidents on the risks they face and how to ameliorate the situations so that protests and demonstrations go forth with minimal or no loss of life.

Along the same lines, the theory is also informative for conflict management efforts. As security becomes less important to a regime, the less likely it is to produce security at any cost. As such, if international intervention backs a regime into a corner, then the leader is going to fight to the bitter end. Recall the case of Yugoslavia: ethnic cleansing and massacres increased after the international community committed to the conflict.

This also applies to the rebel side. As was said above, this model could also be applied to rebel organizations in understanding the tools they use during conflict. As such, and in line with Jessica Stanton's (2016) work, making human rights more salient for them and violations costlier, domestic and international actors could minimize non-combatant losses. Along these lines, the work of Hyeran Jo (2015) about rebel commitment to human rights treaties is informative: giving rebel organizations more opportunities to credibly commit to restraint would make their use of tactics that target civilians more costly, as now the international community may also hold them accountable.

Moreover, domestic audiences may also work to influence the portfolio of actions rebels have available. Again, the work of Oliver Kaplan (2013*a,b*) is informative: international law may empower local communities to engage with violent organizations and demand restraint. Likewise, the work of Ana Arjona (2016) on how communities resist being (completely) ruled by non-state actors is also informative: the quality of local institutions can make citizens engage armed actors in such a way that war-time order may be as peaceful as possible. Seen from our theory's perspective, each community has the ability to make liability greater and more salient to the armed actors, and as such change the calculus on security provision.

# Bibliography

- Acevedo, Karina and Ivan Bornacelly. 2014. "Panel Municipal CEDE." *Documentos CEDE* 26:1–23.
- Ahram, Ariel I. 2011. "Learning to Live with Militias: Toward a Critical Policy on State Frailty." *Journal of Intervention and Statebuilding* 5(2):175–192.
- Arjona, Ana. 2016. *Rebelocracy: Social Order in the Colombian Civil War*. New York: Cambridge University Press.
- Ash, Konstantin. 2016. "Threats to Leaders' Political Survival and Pro-Government Militia Formation." *International Interactions* 42(5):703–728.  
**URL:** <http://dx.doi.org/10.1080/03050629.2016.1138108>
- Banks, Arthur S. 2008. "Cross-national Time-series Data Archive User's Manual." .  
**URL:** <http://www.databanksinternational.com/71.html>
- Biberman, Yelena. 2018. "Self-Defense Militias, Death Squads, and State Outsourcing of Violence in India and Turkey." *Journal of Strategic Studies* 41(5):751–781.  
**URL:** <http://www.tandfonline.com/doi/full/10.1080/01402390.2016.1202822>
- Böhmelt, Tobias and Govinda Clayton. 2018. "Auxiliary Force Structure." *Comparative Political Studies* 51(2):197–237.  
**URL:** <http://journals.sagepub.com/doi/10.1177/0010414017699204>
- Cárdenas, Ernesto and Edgar Villa. 2013. "La política de seguridad democrática y las ejecuciones extrajudiciales." *Ensayos Sobre Política Económica* 31(71):64–72.
- Carey, Sabine C., Michael P. Colaresi and Neil J. Mitchell. 2015. "Governments, Informal Links to Militias, and Accountability." *Journal of Conflict Resolution* 59(5):850–876.
- Carey, Sabine C., Michael P. Colaresi and Neil J. Mitchell. 2016. "Risk Mitigation, Regime Security, and Militias: Beyond Coup-proofing." *International Studies Quarterly* 60(1):59–

72.

**URL:** <https://academic.oup.com/isq/article-lookup/doi/10.1111/isqu.12210>

Carey, Sabine C. and Neil J. Mitchell. 2016. Pro-Government Militias and Conflict. In *Oxford Research Encyclopedia*. Vol. 1 Oxford University Press pp. 1–26.

**URL:** <http://politics.oxfordre.com/view/10.1093/acrefore/9780190228637.001.0001/acrefore-9780190228637-e-33>

Carey, Sabine C. and Neil J. Mitchell. 2017. “Progovernment Militias.” *Annual Review of Political Science* 20(9):127–147.

**URL:** <https://www.annualreviews.org/doi/abs/10.1146/annurev-polisci-051915-045433>

Carey, Sabine C., Neil J. Mitchell and Will Lowe. 2013. “States, the security sector, and the monopoly of violence: A new database on pro-government militias.” *Journal of Peace Research* 50(2):249–258.

**URL:** <http://jpr.sagepub.com/cgi/doi/10.1177/0022343312464881>

Centro Nacional de Memoria Histórica. 2018. *Paramilitarismo: Balance de la Contribución del CNMH al esclarecimiento histórico*. Bogotá: Centro Nacional de Memoria Histórica.

Choi, Hyun Jin and Clionadh Raleigh. 2015. “Dominant Forms of Conflict in Changing Political Systems.” *International Studies Quarterly* 59(1):158–171.

Clayton, Govinda and Andrew Thomson. 2016. “Civilianizing civil conflict: Civilian defense militias and the logic of violence in intrastate conflict.” *International Studies Quarterly* 60(3):499–510.

Cohen, Dara Kay and Ragnhild Nordås. 2015. “Do States Delegate Shameful Violence to Militias? Patterns of Sexual Violence in Recent Armed Conflicts.” *Journal of Conflict Resolution* 59(5):877–898.

Davenport, Christian. 2007. “State Repression and Political Order.” *Annual Review of Political Science* 10(1):1–23.

**URL:** <http://www.annualreviews.org/doi/10.1146/annurev.polisci.10.101405.143216>

De Bruin, Erica. 2018. “Preventing Coups d’état.” *Journal of Conflict Resolution* 62(7):1433–1458.

**URL:** <http://journals.sagepub.com/doi/10.1177/0022002717692652>

Dube, Oeindrila and Suresh Naidu. 2015. “Bases, Bullets, and Ballots: The Effect of U . S . Military Aid on Political Conflict in Colombia.” *The Journal of Politics* 77(1):1–30.

- Duncan, Gustavo. 2014. *Más que plata o plomo: El poder político del narcotráfico en Colombia y México*. Bogotá: Debate.
- Duncan, Gustavo. 2015. *Los Señores de la Guerra*. Bogota: Debate.
- Echandía, Camilo. 2013. "Narcotráfico: Genesis de los paramilitares y herencia de bandas criminales." *Informes FIP* 19.
- Eck, Kristine. 2015. "Repression by Proxy: How Military Purges and Insurgency Impact the Delegation of Coercion." *Journal of Conflict Resolution* 59(5):924–946.  
**URL:** <http://jcr.sagepub.com/cgi/doi/10.1177/0022002715576746>
- Epperly, Brad and Jacqueline Sievert. 2018. "Conflict and Courts: Civil War and Judicial Independence across Democracies." *Political Research Quarterly* (forthcoming):106591291880320.  
**URL:** <http://journals.sagepub.com/doi/10.1177/1065912918803200>
- Esarey, Justin and Andrew Pierce. 2012. "Assesing Fit Quality and Testing for Misspecification in Binary-Dependent Variable Models." *Political Analysis* 20(4):480–500.
- Fearon, James D. and David D. Laitin. 2003. "Ethnicity , Insurgency , and Civil War." *American Political Science Review* 97(1):75–90.
- Garzón, Juan Carlos. 2005. La complejidad paramilitar: una aproximación estratégica. In *El poder paramilitar*, ed. Alfredo Rangel. Bogotá: Editorial Planeta pp. 47–136.
- Gleditsch, Nils Petter, Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg and Håvard Strand. 2002. "Armed Conflict 19462001: A New Dataset." *Journal of Peace Research* 39(5):615–637.
- González, Fernán E. 2014. *Poder y Violencia en Colombia*. Bogotá: Odecofi-Cinep.
- Grajales, Jacobo. 2011. "The rifle and the title: paramilitary violence, land grab and land control in Colombia." *Journal of Peasant Studies* 38(4):771–792.  
**URL:** <http://www.tandfonline.com/doi/abs/10.1080/03066150.2011.607701%5Cnhttp://www.tandf>
- Grajales, Jacobo. 2013. "State Involvement, Land Grabbing and Counter-Insurgency in Colombia." *Development and Change* 44(2):211–232.
- Grajales, Jacobo. 2017. *Gobernar en medio de la violencia: Estado y paramilitarismo en Colombia*. Bogota: Editorial Univesidad del Rosario.

Gutiérrez Sanín, Francisco and Jenniffer Vargas Reina. 2016. Introducción. In *El despojo paramilitar y su variación: quiénes, cómo, por qué*, ed. Francisco Gutiérrez Sanín and Jenniffer Vargas Reina. Bogotá: Editorial Univesidad del Rosario pp. 1–40.

Hathaway, Oona A. 2007. “Why Do Countries Commit to Human Rights Treaties?” *Journal of Conflict Resolution* 51(4):588–621.

**URL:** <http://www.jstor.org/stable/27638567> <http://journals.sagepub.com/doi/10.1177/002200270728>

Human Rights Watch. 2001. The “Sixth Division”: Military-Paramilitary Ties and U.S. Policy in Colombia. Technical report.

**URL:** <https://www.hrw.org/reports/2001/colombia/6theng.pdf>

Jentzsch, Corinna. 2014. Militias and the dynamics of civil war Phd Yale.

Jentzsch, Corinna, Stathis N. Kalyvas and Livia Isabella Schubiger. 2015. “Militias in civil wars.” *Journal of Conflict Resolution* 59(5):755–769.

**URL:** <http://jcr.sagepub.com/cgi/doi/10.1177/0022002715576753>

Jo, Hyeran. 2015. *Compliant Rebels: Rebel Groups and International Law in World Politics*. Cambridge: Cambridge University Press.

Kalyvas, Stathis N. 2006. *The Logic of Violence in Civil War*. Cambridge: Cambridge University Press.

Kalyvas, Stathis N. and Ana Arjona. 2005. Paramilitarismo: una perspectiva teorica. In *El poder paramilitar*, ed. Alfredo Rangel. Bogotá: Editorial Planeta pp. 25–46.

Kaplan, Oliver. 2013a. “Nudging Armed Groups: How Civilians Transmit Norms of Protection.” *Stability: International Journal of Security & Development* 2(3):62.

**URL:** <http://www.stabilityjournal.org/articles/10.5334/sta.cw/>

Kaplan, Oliver. 2013b. “Protecting civilians in civil war: The institution of the ATCC in Colombia.” *Journal of Peace Research* 50(3):351–367.

Koren, Ore. 2017. “Means to an end: Pro-government militias as a predictive indicator of strategic mass killing.” *Conflict Management and Peace Science* 34(5):461–484.

**URL:** <http://cmp.sagepub.com/cgi/doi/10.1177/0738894215600385>

Lessing, Benjamin. 2017. *Making Peace in Drug Wars: Crackdowns and Cartels in Latin America*. New York: Cambridge University Press.



- Levy, Jack S. and William R. Thompson. 2010. *Causes of War*. Malden-Oxford: Wiley-Blackwell.
- Linzer, Drew A. and Jeffrey K. Staton. 2015. "A Global Measure of Judicial Independence, 1948-2012." *Journal of Law and Courts* 3(2):223–256.  
**URL:** <http://www.journals.uchicago.edu/doi/10.1086/682150>
- Lyall, Jason. 2010. "Are coethnics more effective counterinsurgents? evidence from the second chechen war." *American Political Science Review* 104(1):1–20.
- Marshall, Monty G., Keith Jagers and Ted Robert Gurr. 2010. "The Polity IV Project." .  
**URL:** [www.systemicpeace.org/polity/polity4.htm](http://www.systemicpeace.org/polity/polity4.htm).
- Mazzei, Julie. 2009. *Death squads or self-defense forces? How paramilitary groups emerge and challenge democracy in Latin America*. Chapel Hill: University of North Carolina Press.
- Mitchell, Neil J., Sabine C. Carey and Christopher K. Butler. 2014. "The Impact of Pro-Government Militias on Human Rights Violations." *International Interactions* 40(5):812–36.
- Most, Benjamin A. and Harvey Starr. 1984. "International Relations Theory, Foreign Policy Substitutability, and "Nice" Laws." *World Politics* 36(3):383–406.
- Otto, Sabine. 2015. *The Grass Is Always Greener ? Armed Groups' Side Switching in Civil Conflicts* PhD thesis Universität Konstanz.
- Otto, Sabine. 2018. "The Grass Is Always Greener? Armed Group Side Switching in Civil Wars." *Journal of Conflict Resolution* 62(7):1459–1488.  
**URL:** <http://journals.sagepub.com/doi/10.1177/0022002717693047>
- Pachón, Mónica. 2009. "Colombia 2008: éxitos, peligros y desaciertos de la seguridad democrática de la administración Uribe." *Revista de Ciencia Política* 29(2):327–353.
- Palmer, Glenn and T. Clifton Morgan. 2006. *A Theory of Foreign Policy*. Princeton: Princeton University Press.
- Raleigh, Clionadh. 2016. "Pragmatic and Promiscuous." *Journal of Conflict Resolution* 60(2):283–310.  
**URL:** <http://journals.sagepub.com/doi/10.1177/0022002714540472>

- Raleigh, Clionadh and Hyun Jin Choi. 2017. "Conflict Dynamics and Feedback: Explaining Change in Violence against Civilians within Conflicts." *International Interactions* 43(5):848–878.  
**URL:** <http://www.tandfonline.com/doi/abs/10.1080/03050629.2017.1235271>
- Rangel, Alfredo. 2005. Adónde van los paramilitares? In *El poder paramilitar*, ed. Alfredo Rangel. Bogotá: Editorial Planeta pp. 11–24.
- Romero, Mauricio. 2003. *Paramilitares y autodefensas 1982-2003*. Bogota: Planeta.
- Ronderos, María Teresa. 2014. *Guerras recicladas*. Bogotá: Aguilar.
- Simmons, Beth A. 2009. *Mobilizing for Human Rights: International Law in Domestic Politics*. New York: Cambridge University Press.
- Staniland, Paul. 2015. "Militias, Ideology, and the State." *Journal of Conflict Resolution* 59(5):770–793.
- Stanton, Jessica A. 2015. "Regulating Militias: Governments, Militias, and Civilian Targeting in Civil War." *Journal of Conflict Resolution* 59(5):899–923.
- Stanton, Jessica A. 2016. *Violence and Restraint in Civil War: Civilian Targeting in the Shadow of International Law*. New York: Cambridge University Press.
- Sudduth, Jun Koga. 2017. "Coups risk, coup-proofing and leader survival." *Journal of Peace Research* 54(1):3–15.  
**URL:** <http://journals.sagepub.com/doi/10.1177/0022343316676885>
- Sun, Fanglu. 2016. Territorial Autonomy in the Shadow of Ethnic Rebellion PhD thesis Rice University.
- Urrutia, Miguel. 1990. "Análisis costo-beneficio del tráfico de drogas para la economía colombiana." *Coyuntura Económica* 20(3):115–126.  
**URL:** <http://www.repository.fedesarrollo.org.co/handle/11445/2365>
- Valencia, León. 2007. Los caminos de la alianza entre los paramilitares y los políticos. In *Parapolítica: la ruta de la expansión paramilitar y los acuerdos políticos*, ed. Mauricio Romero. Bogotá: Corporación Nuevo Arcoiris pp. 11–58.
- Wolford, Scott. 2015. *The Politics of Military Coalitions*. New York: Cambridge University Press.

Zelik, Raul. 2015. *Paramilitarismo: Violencia y transformación social, política y económica en Colombia*. Bogotá: Siglo del Hombre Editores, Fescol, Goethe Institut.